



**Client:** NYSDEC  
**LVL #:** 0303L980  
**ELAP #:** 10752

**W.O.#:** 01667-601-001-9999-00  
**Date Received:** 03-19-2003

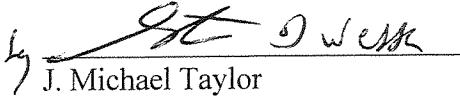
## GC/MS VOLATILE

Six (6) water samples were collected on 03-17-2003.

The samples and their associated QC samples were analyzed according to criteria set forth in Lionville Laboratory OPs based on NYSDEC ASP (Rev.10-95) for TCL Volatile target compounds on 03-24,25-2003.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analyses:

1. All results presented in this report are derived from samples that met LvLI's sample acceptance policy.
2. Samples were analyzed within required holding time.
3. Non-target compounds were detected in the samples.
4. One (1) of thirty-six (36) surrogate recoveries was outside EPA QC limits. The analysis of associated matrix spike duplicate fulfills the reanalysis requirement of sample SH102-0317-D00703 MS.
5. All matrix spike recoveries were within EPA QC limits.
6. All blank spike recoveries were within EPA QC limits.
7. The method blanks contained the common laboratory contaminant Methylene Chloride at levels less than 2x the CRQL.
8. Internal standard area and retention time criteria were met.
9. The analyses were performed with the method enhancement of a 40°C heated purge to standardize the purge temperature and improve overall purging efficiency.
10. Manual integrations are performed according to OP L-QA-125 to produce quality data with the utmost integrity. All manual integrations are required to be technically valid and properly documented. Appropriate technical flags are defined in the Glossary ("Technical Flags For Manual Integration").
11. I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

  
J. Michael Taylor

President  
Lionville Laboratory Incorporated

208 Welsh Pool Road • Lionville, PA 19341-1333 • (610) 280-3000 • Fax (610) 280-3041  
The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 201 pages.

03-2003  
Date

# GC/MS VOLATILES: COMPLETE SDG FILE (CSF) INVENTORY SHEET

LABORATORY NAME:	Lionville Laboratory, Inc.
CITY/STATE:	Lionville, PA
CASE/SDG NO.:	0303L980
CLIENT NAME:	NYSDEC
WORK ORDER NO.:	01467-601-001-9999-00
METHOD BASED ON:	EPA SOW OLM01.8 (SOW 3/90) / SW8240 / SW8260 / <b>NYSDEC ASP</b> (circle one)

All documents in the Client's copy of the complete SDG file must be legible, clearly labeled, paginated, single-sided original documents; or of sufficient copy quality to be reproducible to fourth generation copies. (Purge file documents, e.g., original-copy chain-of-custody, etc. assembled per specific contract request only.)

CLIENT: SDG No.:	Page Nos		Check (initials/date)	
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4 Shipping, Receiving, and Custody Records	08	10		
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o Client Custody Reports/Packing Lists				
o Airbills				
5 Volatiles Sample QC/Data Summary	11	26	PAN312403	
o Data Summary (LIMS Summary Report)				
o System Monitoring Compound Summary (Form II VOA)				
o MS/MSD Duplicate Summary (Form III VOA)				
o Method Blank Summary (Form IV VOA)				
o GC/MS Instrument Performance Check (BFB) (Form V VOA)				
o Internal Standard Area and RT Summary (Form VIII VOA)				
6 Sample Data, for each Sample:	27	98		
o Target Compound Results - Organic Analysis Data Sheet (Form I VOA)				
o Tentatively Identified Compounds (TIC) (Form I VOA-TIC)				
o Reconstructed total ion chromatograms (RIC)/ Quantitation Reports				
o Raw spectra and background-subtracted mass spectra of target compounds identified				
o Mass spectra of all reported TICs with three best library matches				
7 Calibration Standard Data	99	137		
Initial Calibration Data (Form VI VOA)				
o RICs and Quan Reports for all Standards				
Continuing Calibration Data (Form VII VOA)				

CLIENT: SDG No.:		Page Nos		Check (Initials/Date)	
		From	To	Lab	Client
	Continuing Calibration Data (Form VII VOA) o Internal Standard Area and RT Summary (Form VIII VOA) o RICs and Quan Reports for all Standards			M 3/26/03	
8	Raw QC Data: Tune, Blank and Matrix Spike Data GC/MS Instrument Performance Check (BFB) o Bar Graph o Mass Listing o Reconstructed total ion chromatograms (RIC) Method Blank Data o Target Compound Results (Form I VOA) o Tentatively Identified Compounds (TIC) (Form I VOA-TIC) o Reconstructed total ion chromatograms (RIC)/ Quantitation Reports o Raw spectra and background-subtracted mass spectra of target compounds identified o Mass spectra of all reported TICs with three best library matches Blank Spike/Blank Spike Duplicate o TCL Results (Form I VOA) o RIC/Quant Report Matrix Spike/Matrix Spike Duplicate o TCL Results (Form I VOA) o RIC/Quant Report	138	187		
9	Analysis Run Logs	182	188		
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11	Preparation Logs o Screening Records (Logs, Chromatograms) o % Moisture and/or % Solids Records	196	198	NA	
12	Other/Miscellaneous o MDL <del>IDL</del> Table (circle one)	199	200	M 3/26/03 NA	

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Checked by:  
(Laboratory)

 Signature

Printed Name/Title

Date

Checked by:  
(Client)

Signature

Printed Name/Title

Date

Lionville Laboratory, Inc.  
 VOA ANALYTICAL DATA PACKAGE FOR  
 NYSDEC

DATE RECEIVED: 03/19/03

LVL LOT # :0303L980

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SH102-0317-D00709	001	W	03LVH059	03/17/03	N/A	03/24/03
SH102-0317-D00705	002	W	03LVH061	03/17/03	N/A	03/25/03
SH102-0317-D00704	003	W	03LVH059	03/17/03	N/A	03/24/03
SH102-0317-D00707	004	W	03LVH059	03/17/03	N/A	03/24/03
SH102-0317-D00703	005	W	03LVH059	03/17/03	N/A	03/24/03
SH102-0317-D00703	005 MS	W	03LVH059	03/17/03	N/A	03/24/03
SH102-0317-D00703	005 MSD	W	03LVH059	03/17/03	N/A	03/24/03
VOA TB	006	W	03LVH059	03/17/03	N/A	03/24/03

LAB QC:

VBLKMU	MB1	W	03LVH059	N/A	N/A	03/24/03
VBLKMU	MB1 BS	W	03LVH059	N/A	N/A	03/24/03
VBLKMX	MB1	W	03LVH061	N/A	N/A	03/25/03
VBLKMX	MB1 BS	W	03LVH061	N/A	N/A	03/25/03

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### **GC/MS VOLATILE**

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## **Case Narrative**



**Client:** NYSDEC  
**LVL #:** 0303L980  
**ELAP #:** 10752

**W.O.#:** 01667-601-001-9999-00  
**Date Received:** 03-19-2003

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## GLOSSARY OF VOA DATA

### DATA QUALIFIERS

- U** = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.
- J** = Indicates an estimated value. This flag is used under the following circumstances: 1) when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed; or 2) when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. For example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.
- B** = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.
- E** = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.
- D** = Identifies all compounds identified in an analysis at a secondary dilution factor.
- I** = Interference.
- NQ** = Result qualitatively confirmed but not able to quantify.
- N** = Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.
- X** = This flag is used for a TIC compound which is quantified relative to a response factor generated from a daily calibration standard (rather than quantified relative to the closest internal standard).
- Y** = Additional qualifiers used as required are explained in the case narrative.



## GLOSSARY OF VOA DATA

### ABBREVIATIONS

- BS** = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spike solutions and carried through all the steps in the method. Spike recoveries are reported.
- BSD** = Indicates blank spike duplicate.
- MS** = Indicates matrix spike.
- MSD** = Indicates matrix spike duplicate.
- DL** = Suffix added to sample number to indicate that results are from a diluted analysis.
- NA** = Not Applicable.
- DF** = Dilution Factor.
- NR** = Not Required.
- SP, Z** = Indicates Spiked Compound.



## **TECHNICAL FLAGS FOR MANUAL INTEGRATION**

Manual quantitation modifications or integrations are performed routinely to improve the data quality for a variety of technical reasons. Documentation of these modifications should be clear and concise. The following "flags" are used to indicate the technical reasons for quantitation modifications:

- MP** - Missed Peak: manually added peak not found by automatic quantitation program.
- PA** - Peak Assignment: quantitation report was changed to reflect correct peak assignment.
- RI** - Routine Integration: routine integrations are performed for some analytes that are consistently integrated improperly by the automatic integration programs. Examples are the dichlorobenzene isomers on the VOA packed column and benzo(b)fluoranthene/benzo(k)fluoranthene which are poorly resolved on the BNA column.
- SP** - Split Peak: the automatic integration improperly split the peak; a manual integration was performed to get the correct area.
- CB** - Coelution/Background: peak was manually integrated to eliminate contribution from coeluting compounds, background signal, or other interference.
- PI** - Proper Integration: a peak with poor or inconsistent integration (e.g., excessive tail) was properly integrated manually.

## **Shipping, Receiving and Custody Records**



Q303L980

# Custody Transfer Record/Lab Work Request

Page 1 of 1



FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

JB

Client	NYSDEC
Est. Final Proj. Sampling Date	3/17/03 01667-01-001-
Project #	SH1020317D007 9999-00
Project Contact/Phone #	Jamie Asher 6314440246
Lionville Laboratory Project Manager	Judi Sane
QC	CUP Del CUP TAT 30 day

Date Rec'd 3-19-03 Date Due 4-10-03

ANALYSES REQUESTED →

Date

Lionville Laboratory Use Only ↓

MATRIX CODES:	Lab ID	Client ID/Description	Matrix QC Chosen (✓)	Matrix Collected	Date Collected	Time Collected	Refrigerator #		
							Liquid	Solid	
S - Soil									
SE - Sediment									
SO - Solid									
SL - Sludge									
W - Water									
O - Oil									
A - Air									
DS - Drum									
DL - Drum Solids									
L - Liquids									
L - EP/CLP Leachate									
WI - Wipe									
X - Other									
F - Fish									

DATE/REVISIONS:

1. Hand &amp; VOA TB Added To Ctr

Lionville Laboratory Use Only

Samples were  or Tamper Resistant Seal was:1) Shipped  or  OuterHand Delivered 2) Package  or NAirbill # 

See Below

3) Present on Sample

4) Unbroken on

Sample  or 

Y or N

5) Received Within

Holding Times  or N

COC Record Present

Upon Sample Rec't

 or NCooler  or Temp.  °C

Special Instructions:

Discrepancies Between

Samples Labels and

COC Record? Y or N or 

NOTES:

Relinquished by	Received by	Date	Time
John [Signature]	John [Signature]	3/18/03	12:00

401 932 2241

**LIONVILLE LABORATORY INCORPORATED**  
**SAMPLE RECEIPT CHECKLIST**

**CLIENT:** Nysdec

Purchase Order/Project: SH 102 0317 D007

**DATE:** 3/19/03

SAF# / SOW# / Release #: 114

Laboratory SDG #:

0303 L 980

**NOTE: ALL ENTRIES MARKED "NO" MUST BE EXPLAINED IN THE COMMENT SECTION**

1. Custody seals on coolers or shipping container intact, signed and dated?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	<input type="checkbox"/> see Comment #
2. Outside of coolers or shipping containers are free from damage?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	<input type="checkbox"/> see Comment #
3. Airbill # recorded?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	<input type="checkbox"/> see Comment #
4. All expected paperwork received (coc and other client specific: historical data, alpha/beta or other screening data as applicable)? (paperwork sealed in plastic bag and taped to inside lid)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	<input type="checkbox"/> see Comment #
5. Sample containers are intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	<input type="checkbox"/> see Comment #
6. Custody seals on sample containers intact, signed and dated?	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	<input type="checkbox"/> see Comment #
7. All samples on coc received?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	<input type="checkbox"/> see Comment #
8. All sample label information matches coc?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	<input type="checkbox"/> see Comment #
9. Laboratory QC samples designated on coc? (QC stickers placed on bottles?)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> see Comment #
10. Shipment meets LvLI Sample Acceptance Policy? (identify all bottles not within policy. See reverse side for policy)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	<input type="checkbox"/> see Comment #
11. Where applicable, bar code labels are affixed to coc?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	<input type="checkbox"/> see Comment #
12. coc signed and dated?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	<input type="checkbox"/> see Comment #
13. coc will be faxed or emailed to client?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	<input type="checkbox"/> see Comment #
14. Project Manager/Client contacted concerning discrepancies? (name/date)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> see Comment #

Cooler # / temp (°C) and Comments:

2°

Laboratory Sample Custodian:

Laboratory Project Manager:

## **Sample QC/Data Summary**

Lionville Laboratory, Inc.

Volatiles by GC/MS

Report Date: 03/26/03 11:25  
Page: 1a

RFW Batch Number: 0303L980

C

1

Client: NYSDEC

Cust ID: SH102-0317-D SH102-0317-D SH102-0317-D SH102-0317-D SH102-0317-D SH102-0317-D SH102-0317-D SH102-0317-D  
00709 00705 00704 00707 00703 005 005 MS  
001 002 003 004 005  
RFM#: Matrix: D.F.: Units:

Sample Information	WATER	WATER	WATER	WATER	WATER	WATER							
	1.00	1.00	1.00	1.00	1.00	1.00							
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L							
Surrogate	Toluene-d8	104	%	108	%	103	%	102	%	110	%	94	%
Recovery	Bromofluorobenzene-d4	94	%	95	%	90	%	89	%	94	%	80	*
Dichlorodifluoromethane		95	%	96	%	94	%	94	%	100	%	88	%
Chloromethane		10	U	10	U	10	U	10	U	10	U	10	U
Vinyl Chloride		10	U	10	U	10	U	10	U	10	U	10	U
Bromomethane		10	U	10	U	10	U	10	U	10	U	10	U
Chloroethane		10	U	10	U	10	U	10	U	10	U	10	U
Trichlorofluoromethane		10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene		10	U	10	U	10	U	10	U	10	U	89	%
1,1,2-Trichlorotrifluoroethane		10	U	10	U	10	U	10	U	10	U	10	U
Acetone		10	U	10	U	10	U	10	U	10	U	10	U
Carbon Disulfide		10	U	10	U	10	U	10	U	10	U	10	U
Methyl Acetate		10	U	10	U	10	U	10	U	10	U	10	U
Methylene Chloride		5	JB	9	JB	3	JB	4	JB	5	JB	5	JB
Trans-1,2-dichloroethene		10	U	10	U	10	U	10	U	10	U	10	U
tert-Butyl Methyl Ether		47	12	10	U	10	U	4	J	3	J	10	U
1,1-Dichloroethane		10	U	10	U	10	U	10	U	10	U	10	U
Cis-1,2-dichloroethene		10	U	10	U	10	U	10	U	10	U	10	U
2-Butanone		10	U	10	U	10	U	10	U	10	U	10	U
Chloroform		10	U	10	U	10	U	10	U	10	U	10	U
1,1,1-Trichloroethane		10	U	10	U	10	U	10	U	10	U	10	U
Benzene		10	U	10	U	10	U	10	U	10	U	10	U
Cyclohexane		10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethane		10	U	10	U	10	U	10	U	10	U	101	%
Trichloroethene		10	U	10	U	10	U	10	U	10	U	10	U
Methylcyclohexane		10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane		10	U	10	U	10	U	10	U	10	U	10	U
Bromodichloromethane		10	U	10	U	10	U	10	U	10	U	10	U
cis-1,3-Dichloropropene		10	U	10	U	10	U	10	U	10	U	10	U
4-Methyl-2-pentanone		10	U	10	U	10	U	10	U	10	U	10	U

\* = Outside of EPA CLP QC limits.

Cust ID:	SH102-0317-D							
RFW#:	00709	00705	00704	00707	00703	00703	00703	
	001	002	003	004	005	005	005 MS	
Toluene	10	U	10	U	10	U	100	%
Trans-1,3-Dichloropropene	10	U	10	U	10	U	10	U
1,1,2-Trichloroethane	10	U	10	U	10	U	10	U
Tetrachloroethene	1	J	2	J	3	J	2	J
2-Hexanone	10	U	10	U	10	U	10	U
Dibromochloromethane	10	U	10	U	10	U	10	U
1,2-Dibromoethane	10	U	10	U	10	U	10	U
Chlorobenzene	10	U	10	U	10	U	10	U
Ethylbenzene	10	U	10	U	10	U	10	U
Xylene (total)	10	U	10	U	10	U	10	U
Styrene	10	U	10	U	10	U	10	U
Bromoform	10	U	10	U	10	U	10	U
Isopropylbenzene	10	U	10	U	10	U	10	U
1,1,2,2-Tetrachloroethane	10	U	10	U	10	U	10	U
1,3-Dichlorobenzene	10	U	10	U	10	U	10	U
1,4-Dichlorobenzene	10	U	10	U	10	U	10	U
1,2-Dichlorobenzene	10	U	10	U	10	U	10	U
1,2-Dibromo-3-chloropropane	10	U	10	U	10	U	10	U
1,2,4-Trichlorobenzene	10	U	10	U	10	U	10	U

\*= Outside of EPA CLP QC limits.

**Lionville Laboratory, Inc.**

Volatile s by GC/MS

Report Date: 03/26/03 11:254

Work Order: 01667601001 Page: 2a

RFW Batch Number: 0303L980

Client: NYSDEC

Sample Information	Cust ID:	SH102-0317-D 00703	VOA TB 005 MSD	VELKMU 03LVH059-MB1	VELKMU BS 03LVH059-MB1	VELKMX 03LVH061-MB1	VELKMX BS 03LVH061-MB1	
	Matrix:	WATER	WATER	WATER	WATER	WATER	WATER	
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00	
	Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
Surrogate	Toluene-d8	100	%	108	%	106	%	
Recovery	Bromofluorobenzene	92	%	92	%	89	%	
				98	%	102	%	
					97	%	94	%
Dichlorodifluoromethane		10	U	10	U	10	U	
Chloromethane		10	U	10	U	10	U	
Vinyl Chloride		10	U	10	U	10	U	
Bromomethane		10	U	10	U	10	U	
Chloroethane		10	U	10	U	10	U	
Trichlorofluoromethane		10	U	10	U	10	U	
1,1-Dichloroethene		90	%	10	U	10	U	
1,1,2-Trichlorotrifluoroethane		10	U	10	U	10	U	
Acetone		10	U	10	U	10	U	
Carbon Disulfide		10	U	10	U	10	U	
Methyl Acetate		10	U	10	U	10	U	
Methylene Chloride		5	JB	6	JB	13	B	
Trans-1,2-dichloroethene		10	U	10	U	10	U	
tert-Butyl Methyl Ether		4	J	10	U	10	U	
1,1-Dichloroethane		10	U	10	U	10	U	
Cis-1,2-dichloroethene		10	U	10	U	10	U	
2-Butanone		10	U	10	U	10	U	
Chloroform		10	U	10	U	10	U	
1,1,1-Trichloroethane		1	J	10	U	10	U	
Cyclohexane		10	U	10	U	10	U	
Carbon Tetrachloride		10	U	10	U	10	U	
Benzene		10	U	10	U	10	U	
1,2-Dichloroethane		101	%	101	%	101	%	
Trichloroethene		10	U	10	U	10	U	
Methylcyclohexane		103	%	10	U	102	%	
1,2-Dichloropropane		10	U	10	U	10	U	
Bromodichloromethane		10	U	10	U	10	U	
cis-1,3-Dichloropropene		10	U	10	U	10	U	
4-Methyl-2-pentanone		10	U	10	U	10	U	

\* = Outside of EPA CLP QC limits.

Cust ID: SH102-0317-D

00703

005 MSD

RFW#:

006 03LVH059-MB1 03LVH059-MB1 03LVH061-MB1 03LVH061-MB1

006 03LVH059-MB1 03LVH059-MB1 03LVH061-MB1 03LVH061-MB1

		VOA TB	VBLKMU	VBLKMU BS	VBLKMX	VBLKMX BS
Toluene	*	103	10 U	10 U	10 U	99 %
Trans-1, 3-Dichloropropene		10	U	10 U	10 U	10 U
1, 1, 2-Trichloroethane		10	U	10 U	10 U	10 U
Tetrachloroethene		1	J	10 U	10 U	10 U
2-Hexanone		10	U	10 U	10 U	10 U
Dibromochloromethane		10	U	10 U	10 U	10 U
1, 2-Dibromoethane		10	U	10 U	10 U	10 U
Chlorobenzene		104	%	10 U	104 %	99 %
Ethylbenzene		10	U	10 U	10 U	10 U
Xylene (total)		10	U	10 U	10 U	10 U
Styrene		10	U	10 U	10 U	10 U
Bromoform		10	U	10 U	10 U	10 U
Isopropylbenzene		10	U	10 U	10 U	10 U
1, 1, 2, 2-Tetrachloroethane		10	U	10 U	10 U	10 U
1, 3-Dichlorobenzene		10	U	10 U	10 U	10 U
1, 4-Dichlorobenzene		10	U	10 U	10 U	10 U
1, 2-Dichlorobenzene		10	U	10 U	10 U	10 U
1, 2-Dibromo-3-chloropropane		10	U	10 U	10 U	10 U
1, 2, 4-Trichlorobenzene		10	U	10 U	10 U	10 U

\* = Outside of EPA CLP QC limits.

2A  
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Lionville Labs, Inc.

Contract: 01667601001

Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	SH102-0317-D00709	104	94	95		0
02	SH102-0317-D00705	108	95	96		0
03	SH102-0317-D00704	103	90	94		0
04	SH102-0317-D00707	102	89	94		0
05	SH102-0317-D00703	110	94	100		0
06	SH102-0317-D00703MS	94	80*	88		1
07	SH102-0317-D00703MSD	100	92	92		0
08	VOA TB	108	92	98		0
09	VBLKMU	106	89	102		0
10	VBLKMU	BS	102	94	97	0
11	VBLKMX		106	92	94	0
12	VBLKMX	BS	105	93	96	0

QC LIMITS

SMC1 (TOL) = Toluene-d8 ( 88-110)

SMC2 (BFB) = Bromofluorobenzene ( 86-115)

SMC3 (DCE) = 1,2-Dichloroethane-d4 ( 76-114)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D System Monitoring Compound diluted out

3A

## WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Lionville Labs, Inc.Contract: 1667-01-01Lab Code: Lionvi Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_MATRIX Spike - EPA Sample No.: SH102-0317-D0

COMPOUND	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene_____	50.0	0	44.6	89	61 -145
Benzene_____	50.0	0	48.8	98	76 -127
Trichloroethene_____	50.0	0	50.5	101	71 -120
Toluene_____	50.0	0	50.1	100	76 -125
Chlorobenzene_____	50.0	0	50.5	101	75 -130

COMPOUND	SPIKE ADDED ug/L	MSD CONCENTRATION ug/L	MSD % REC #	MSD % RPD #	QC LIMITS RPD   REC
1,1-Dichloroethene_____	50.0	45.0	90	1	14   61 -145
Benzene_____	50.0	50.4	101	3	11   76 -127
Trichloroethene_____	50.0	51.7	103	1	14   71 -120
Toluene_____	50.0	51.4	103	2	13   76 -125
Chlorobenzene_____	50.0	52.0	104	2	13   75 -130

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 5 outside limitsSpike Recovery: 0 out of 10 outside limits

COMMENTS: \_\_\_\_\_

3A  
WATER VOLATILE MATRIX SPIKE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 1667-01-01  
 Lab Code: Lionvi Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 MATRIX Spike - EPA Sample No.: VBLKMU

COMPOUND	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene_____	50.0	0	47.9	96	61 -145
Benzene_____	50.0	0	50.4	101	76 -127
Trichloroethene_____	50.0	0	51.2	102	71 -120
Toluene_____	50.0	0	51.7	103	76 -125
Chlorobenzene_____	50.0	0	52.1	104	75 -130

# Column to be used to flag recovery value with an asterisk

\* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_

3A  
WATER VOLATILE MATRIX SPIKE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 1667-01-01  
 Lab Code: Lionvi Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 MATRIX Spike - EPA Sample No.: VBLKMX

COMPOUND	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene_____	50.0	0	44.3	89	61 -145
Benzene_____	50.0	0	46.7	93	76 -127
Trichloroethene_____	50.0	0	47.8	96	71 -120
Toluene_____	50.0	0	49.3	99	76 -125
Chlorobenzene_____	50.0	0	49.4	99	75 -130

# Column to be used to flag recovery value with an asterisk

\* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_

4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

Lab Name:Lionville Laborato Contract:01667-601-001-9999-00

VBLKMU

Lab Code: LVLI Case No.: SAS No.: SDG No.: 03L980

Lab File ID: H032405 Lab Sample ID: 03LVH059-MB1

Date Analyzed: 03/24/3 Time Analyzed: 1007

GC Column: RTX-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: 5972H

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01 VBLKMUBS	03LVH059-MB1S	H032407	1119
02 VOA TB	0303L980-006	H032413	1503
03 SH102-0317-D00709	0303L980-001	H032414	1538
04 SH102-0317-D00704	0303L980-003	H032416	1649
05 SH102-0317-D00707	0303L980-004	H032417	1724
06 SH102-0317-D00703	0303L980-005	H032418	1759
07 SH102-0317-D00703MS	0303L980-005S	H032419	1835
08 SH102-0317-D00703MS	0303L980-005T	H032420	1911
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COMMENTS:

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4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

Lab Name:Lionville Laborato Contract:01667-601-001-9999-00

VBLKMX

Lab Code: LVLI Case No.: SAS No.: SDG No.: 03L980

Lab File ID: H032507 Lab Sample ID: 03LVH061-MB1

Date Analyzed: 03/25/3 Time Analyzed: 1119

GC Column: RTX-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: 5972H

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01 VBLKMXBS	03LVH061-MB1S	H032506	1017
02 SH102-0317-D00705	0303L980-002	H032511	1359
03			
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COMMENTS:

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5A  
 VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
 BROMOFLUOROBENZENE (BFB)

Lab Name: Lionville Laboratory Inc. Contract: 01667-601-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 03L980

Lab File ID: H030601 BFB Injection Date: 03/06/3

Instrument ID: 5972H BFB Injection Time: 0715

GC Column: RTX 624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	27.5
75	30.0 - 60.0% of mass 95	59.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 ( 0.0)1
174	50.0 - 100.0% of mass 95	74.0
175	5.0 - 9.0% of mass 174	5.3 ( 7.1)1
176	95.0 - 100.9% of mass 174	72.1 ( 97.5)1
177	5.0 - 9.0% of mass 176	5.0 ( 6.9)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01 VSTD200	VSTD200	H030602	03/06/3	0737
02 VSTD100	VSTD100	H030603	03/06/3	0816
03 VSTD50	VSTD50	H030604	03/06/3	0855
04 VSTD10	VSTD10	H030606	03/06/3	1013
05 VSTD20	VSTD20	H030609	03/06/3	1204
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5A  
 VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
 BROMOFLUOROBENZENE (BFB)

Lab Name: Lionville Laboratory Inc. Contract: 01667-601-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 03L980

Lab File ID: H032401 BFB Injection Date: 03/24/3

Instrument ID: 5972H BFB Injection Time: 0750

GC Column: RTX 624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.9
75	30.0 - 60.0% of mass 95	54.0
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.0 ( 0.0)1
174	50.0 - 100.0% of mass 95	70.1
175	5.0 - 9.0% of mass 174	5.3 ( 7.6)1
176	95.0 - 100.9% of mass 174	68.9 ( 98.3)1
177	5.0 - 9.0% of mass 176	4.4 ( 6.3)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01 VSTD50	VSTD50	H032403	03/24/3	0850
02 VBLKMU	03LVH059-MB1	H032405	03/24/3	1007
03 VBLKMUBS	03LVH059-MB1S	H032407	03/24/3	1119
04 VOA TB	0303L980-006	H032413	03/24/3	1503
05 SH102-0317-D00709	0303L980-001	H032414	03/24/3	1538
06 SH102-0317-D00704	0303L980-003	H032416	03/24/3	1649
07 SH102-0317-D00707	0303L980-004	H032417	03/24/3	1724
08 SH102-0317-D00703	0303L980-005	H032418	03/24/3	1759
09 SH102-0317-D00703MS	0303L980-005S	H032419	03/24/3	1835
10 SH102-0317-D00703MS	0303L980-005T	H032420	03/24/3	1911
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5A  
 VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
 BROMOFLUOROBENZENE (BFB)

Lab Name: Lionville Laboratory Inc. Contract: 01667-601-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 03L980

Lab File ID: H032501 BFB Injection Date: 03/25/3

Instrument ID: 5972H BFB Injection Time: 0720

GC Column: RTX 624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.0
75	30.0 - 60.0% of mass 95	50.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 ( 0.0)1
174	50.0 - 100.0% of mass 95	72.1
175	5.0 - 9.0% of mass 174	5.1 ( 7.1)1
176	95.0 - 100.9% of mass 174	69.9 ( 96.9)1
177	5.0 - 9.0% of mass 176	5.0 ( 7.2)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01 VSTD50	VSTD50	H032502	03/25/3	0744
02 VBLKMXBS	03LVH061-MB1S	H032506	03/25/3	1017
03 VBLKMX	03LVH061-MB1	H032507	03/25/3	1119
04 SH102-0317-D00705	0303L980-002	H032511	03/25/3	1359
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8A  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lionville Laboratory Inc. Contract: 01667-601-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 03L980

Lab File ID (Standard): H032403 Date Analyzed: 03/24/3

Instrument ID: 5972H Time Analyzed: 0850

GC Column: RTX-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

	IS1 (BCM) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (CBZ) AREA #	RT #
12 HOUR STD	479756	13.61	1982969	15.31	1652141	20.01
UPPER LIMIT	959512	14.11	3965938	15.81	3304282	20.51
LOWER LIMIT	239878	13.11	991484	14.81	826070	19.51
EPA SAMPLE NO.						
01 VBLKMU	349379	13.62	1411658	15.32	1136305	20.01
02 VBLKMUBS	510736	13.61	2131844	15.32	1756914	20.02
03 VOA TB	406410	13.61	1640505	15.33	1314480	20.02
04 SH102-0317-D00709	462608	13.62	1862839	15.33	1512204	20.02
05 SH102-0317-D00704	451023	13.62	1855833	15.33	1491467	20.02
06 SH102-0317-D00707	375780	13.62	1516164	15.33	1227469	20.02
07 SH102-0317-D00703	315726	13.62	1240426	15.33	1002963	20.02
08 SH102-0317-D00703MS	368249	13.62	1493417	15.33	1239483	20.02
09 SH102-0317-D00703MS	510425	13.61	2062799	15.33	1709051	20.02
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IS1 (BCM) = Bromochloromethane

IS2 (DFB) = 1,4-Difluorobenzene

IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits.

8A  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lionville Laboratory Inc. Contract: 01667-601-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 03L980

Lab File ID (Standard): H032502 Date Analyzed: 03/25/3

Instrument ID: 5972H Time Analyzed: 0744

GC Column: RTX-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

	IS1 (BCM) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (CBZ) AREA #	RT #
12 HOUR STD	430919	13.60	1809865	15.32	1547245	20.01
UPPER LIMIT	861838	14.10	3619730	15.82	3094490	20.51
LOWER LIMIT	215460	13.10	904932	14.82	773622	19.51
EPA SAMPLE NO.						
01 VBLKMXBS	387356	13.61	1631753	15.32	1362408	20.03
02 VBLKMX	489532	13.60	2081393	15.32	1685340	20.01
03 SH102-0317-D00705	414045	13.62	1676786	15.32	1389648	20.02
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22						

IS1 (BCM) = Bromochloromethane

IS2 (DFB) = 1,4-Difluorobenzene

IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits.

## **Sample Data for each Sample**

## VOLATILE ORGANICS ANALYSIS DATA SHEET

SH102-0317-D00709

Lab Name: Lionville Labs, Inc. Contract: 01667601001Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 0303L980-001Sample wt/vol: 5.00 (g/mL) MLLab File ID: h032414Level: (low/med) LOWDate Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
---------	----------	---	---

75-71-8-----	Dichlorodifluoromethane	10	U
74-87-3-----	Chloromethane	10	U
75-01-4-----	Vinyl Chloride	10	U
74-83-9-----	Bromomethane	10	U
75-00-3-----	Chloroethane	10	U
75-69-4-----	Trichlorofluoromethane	10	U
75-35-4-----	1,1-Dichloroethene	10	U
76-13-1-----	1,1,2-Trichlorotrifluoroethane	10	U
67-64-1-----	Acetone	10	U
75-15-0-----	Carbon Disulfide	10	U
79-20-9-----	Methyl Acetate	10	U
75-09-2-----	Methylene Chloride	5	JB
156-60-5-----	Trans-1,2-dichloroethene	10	U
1634-04-4-----	tert-Butyl Methyl Ether	47	
75-34-3-----	1,1-Dichloroethane	10	U
156-59-2-----	Cis-1,2-dichloroethene	10	U
78-93-3-----	2-Butanone	10	U
67-66-3-----	Chloroform	10	U
71-55-6-----	1,1,1-Trichloroethane	10	U
110-82-7-----	Cyclohexane	10	U
56-23-5-----	Carbon Tetrachloride	10	U
71-43-2-----	Benzene	10	U
107-06-2-----	1,2-Dichloroethane	10	U
79-01-6-----	Trichloroethene	10	U
108-87-2-----	Methylcyclohexane	10	U
78-87-5-----	1,2-Dichloropropane	10	U
75-27-4-----	Bromodichloromethane	10	U
10061-01-5-----	cis-1,3-Dichloropropene	10	U
108-10-1-----	4-Methyl-2-pentanone	10	U
108-88-3-----	Toluene	10	U
10061-02-6-----	Trans-1,3-Dichloropropene	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
127-18-4-----	Tetrachloroethene	1	J
591-78-6-----	2-Hexanone	10	U

## VOLATILE ORGANICS ANALYSIS DATA SHEET

SH102-0317-D00709

Lab Name: Lionville Labs, Inc. Contract: 01667601001Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 0303L980-001Sample wt/vol: 5.00 (g/mL) MLLab File ID: h032414Level: (low/med) LOWDate Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) ug/L

Q

124-48-1-----Dibromochloromethane	10	U
106-93-4-----1,2-Dibromoethane	10	U
108-90-7-----Chlorobenzene	10	U
100-41-4-----Ethylbenzene	10	U
1330-20-7-----Xylene (total)	10	U
100-42-5-----Styrene	10	U
75-25-2-----Bromoform	10	U
98-82-8-----Isopropylbenzene	10	U
79-34-5-----1,1,2,2-Tetrachloroethane	10	U
541-73-1-----1,3-Dichlorobenzene	10	U
106-46-7-----1,4-Dichlorobenzene	10	U
95-50-1-----1,2-Dichlorobenzene	10	U
96-12-8-----1,2-Dibromo-3-chloropropane	10	U
120-82-1-----1,2,4-Trichlorobenzene	10	U

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SH102-0317-D00709

Lab Name: Lionville Labs, Inc. Contract: 01667601001Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 0303L980-001Sample wt/vol: 5.00 (g/mL) MLLab File ID: h032414Level: (low/med) LOWDate Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 3

## CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	SILOXANE	18.313	40	J
2.	SILOXANE	22.254	60	J
3.	SILOXANE	25.532	20	J

Data File: /chem/msvoa3/5972h.i/h0324030.b/h032414.d

Date : 24-MAR-03 15:38:00

Client ID: SH103-0317-D00709

Sample Info: 0303L980-001 H032401,[FAL=0624C01],[DC=001]

Purge Volume: 5.0

Column phase: RTX-624

Page 4

CO

Instrument: 5972H.i  
Operator: MFS  
Column diameter: 0.53

/chem/msvoa3/5972h.i/h0324030.b/h032414.d

Y ( $\times 10^6$ )

1.1

1.0

0.9

0.8

0.7

0.6

0.5

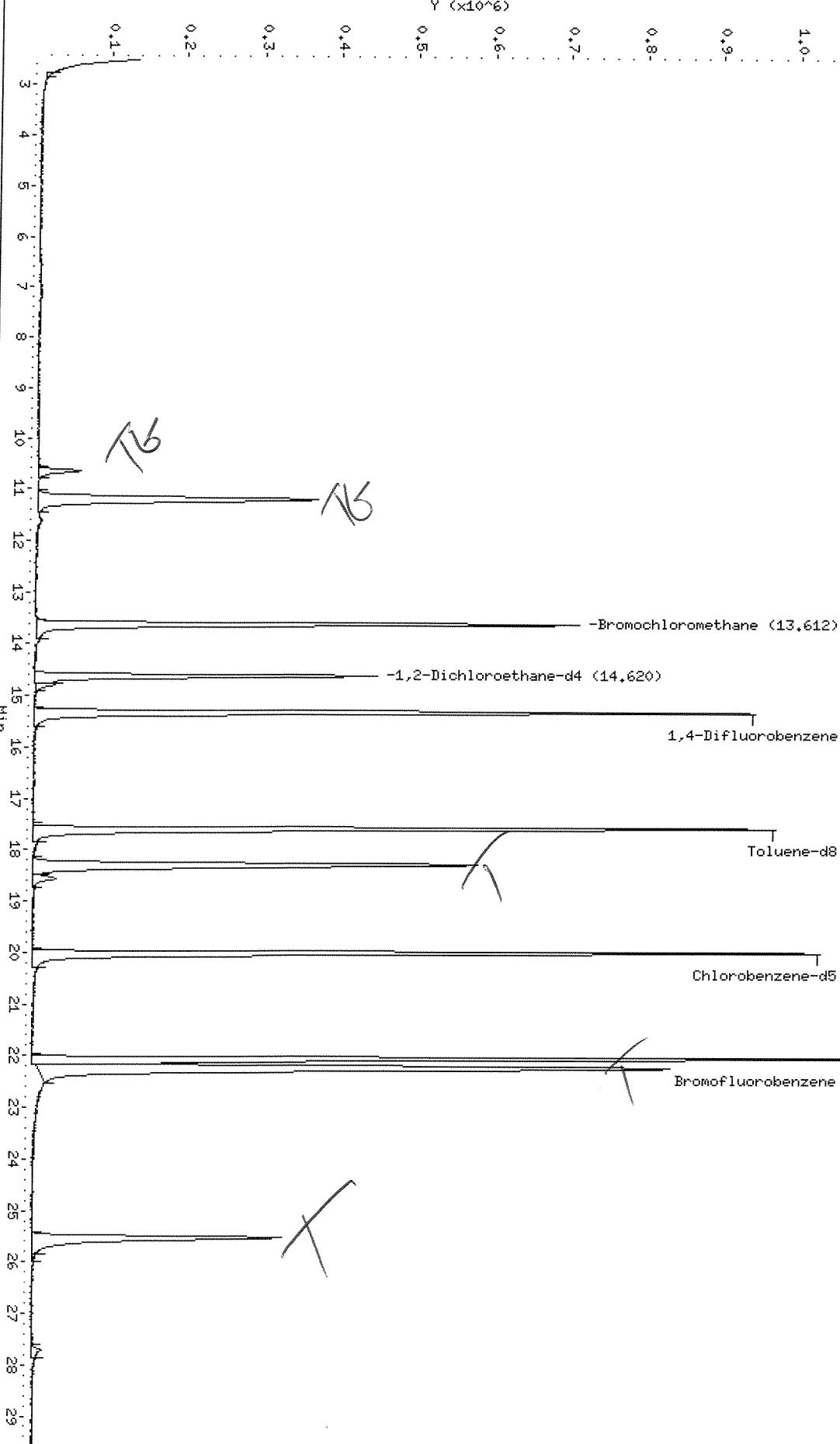
0.4

0.3

0.2

0.1

0



Lionville Laboratory Inc.

Data file : /chem/msvoa3/5972h.i/h032403o.b/h032414.d  
Lab Smp Id: 0303L980-001 Client Smp ID: SH102-0317-D00709  
Inj Date : 24-MAR-03 15:38:00  
Operator : MFS Inst ID: 5972H.i  
Smp Info : 0303L980-001 H032401, [AL=O624CO], [DC=00]  
Misc Info : DIL,1,WSRC 5ML  
Comment :  
Method : /chem/msvoa3/5972h.i/h032403o.b/olm4.1w.m ✓  
Meth Date : 26-Mar-03 10:32:50 rubinob Quant Type: ISTD ✓  
Cal Date : 24-MAR-03 08:50:00 Cal File: h032403.d ✓  
Als bottle: 15  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: O624CO.sub ✓  
Target Version: 3.30  
Processing Host: hp4920a

Concentration Formula: Uf/Vo

Name	Value	Description
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
* 1 Bromochloromethane	====	128	13.622	13.605 (1.000)		462608	50.0000	
* 2 1,4-Difluorobenzene	==	114	15.331	15.314 (1.000)		1862839	50.0000	
* 3 Chlorobenzene-d5	=====	117	20.022	20.015 (1.000)		1512204	50.0000	
\$ 4 1,2-Dichloroethane-d4	=====	65	14.620	14.603 (1.073)		788874	47.5727	47.573
\$ 5 Toluene-d8	=====	98	17.602	17.585 (0.879)		1609645	52.2184	52.218
\$ 6 Bromofluorobenzene	=====	95	22.066	22.059 (1.102)		1217148	46.7928	46.793
68 Dichlorodifluoromethane	85.00					Compound Not Detected.		
7 Chloromethane	50.00					Compound Not Detected.		
8 Vinyl Chloride	62.00					Compound Not Detected.		
9 Bromomethane	94.00					Compound Not Detected.		
10 Chloroethane	64.00					Compound Not Detected.		
11 Trichlorofluoromethane	101.00					Compound Not Detected.		
14 1,1-Dichloroethene	96.00					Compound Not Detected.		
65 Freon-113	151.00					Compound Not Detected.		
16 Acetone	43		9.731	9.695 (0.714)		3723	1.32908	1.329(a) X
15 Carbon Disulfide	76.00					Compound Not Detected.		
69 Methyl Acetate	43.00					Compound Not Detected.		

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN ( ug/L)	FINAL ( ug/L)
17 Methylene Chloride	84		10.649	10.643 (0.782)		73991	4.75045	4.750(a) ✓
19 trans-1,2-Dichloroethene	96.00					Compound Not Detected.		
20 Methyl-T-Butylether	73		11.193	11.186 (0.822)		1156037	46.7312	46.731 ✓
23 1,1-Dichloroethane	63.00					Compound Not Detected.		
25 cis-1,2-Dichloroethene	96.00					Compound Not Detected.		
26 2-Butanone	43.00					Compound Not Detected.		
27 Chloroform	83.00					Compound Not Detected.		
28 1,1,1-Trichloroethane	97.00					Compound Not Detected.		
70 Cyclohexane	56.00					Compound Not Detected.		
29 Carbon Tetrachloride	117.00					Compound Not Detected.		
30 Benzene	78.00					Compound Not Detected.		
31 1,2-Dichloroethane	62.00					Compound Not Detected.		
32 Trichloroethene	130.00					Compound Not Detected.		
71 Methylcyclohexane	83.00					Compound Not Detected.		
33 1,2-Dichloropropane	63.00					Compound Not Detected.		
34 Bromodichloromethane	83.00					Compound Not Detected.		
36 cis-1,3-Dichloropropene	75.00					Compound Not Detected.		
37 4-Methyl-2-Pentanone	43.00					Compound Not Detected.		
38 Toluene	91.00					Compound Not Detected.		
39 trans-1,3-Dichloropropene	75	18.303	18.207 (1.194)			37795	2.12079	2.121(a) ✓
40 1,1,2-Trichloroethane	97.00					Compound Not Detected.		
41 Tetrachloroethene	164	18.560	18.543 (0.927)			16090	1.12025	1.120(a) ✓
43 2-Hexanone	43.00					Compound Not Detected.		
42 Dibromochloromethane	129.00					Compound Not Detected.		
72 1,2-Dibromoethane	107.00					Compound Not Detected.		
44 Chlorobenzene	112.00					Compound Not Detected.		
45 Ethylbenzene	106.00					Compound Not Detected.		
46 m & p-Xylene	106.00					Compound Not Detected.		
47 o-Xylene	106.00					Compound Not Detected.		
M 48 Xylenes (Total)	106.00					Compound Not Detected.		
49 Styrene	104.00					Compound Not Detected.		
50 Bromoform	173.00					Compound Not Detected.		
73 Isopropylbenzene	105.00					Compound Not Detected.		
51 1,1,2,2-Tetrachloroethane	83.00					Compound Not Detected.		
52 1,3-Dichlorobenzene	146.00					Compound Not Detected.		
53 1,4-Dichlorobenzene	146.00					Compound Not Detected.		
54 1,2-Dichlorobenzene	146.00					Compound Not Detected.		
74 1,2-Dibromo-3-Chloropropane	75.00					Compound Not Detected.		
75 1,2,4-Trichlorobenzene	180.00					Compound Not Detected.		

#### QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ) .

3/26/03

Lionville Laboratory Inc.

Data file : /chem/msvoa3/5972h.i/h032403o.b/h032414.d  
Lab Smp Id: 0303L980-001 Client Smp ID: SH102-0317-D00709  
Inj Date : 24-MAR-03 15:38:00  
Operator : MFS Inst ID: 5972H.i  
Smp Info : 0303L980-001 H032401, [AL=O624CO], [DC=00]  
Misc Info : DIL,1,WSRC 5ML  
Comment :  
Method : /chem/msvoa3/5972h.i/h032403o.b/olm4.1w.m  
Meth Date : 26-Mar-03 10:32:50 rubinob Quant Type: ISTD  
Cal Date : 24-MAR-03 08:50:00 Cal File: h032403.d  
Als bottle: 15  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: O624CO.sub  
Target Version: 3.30  
Processing Host: hp4920a

Concentration Formula: Uf/Vo

Name	Value	Description
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)

ISTD	RT	AREA	AMOUNT
=====	====	=====	=====
* 3 Chlorobenzene-d5	20.022	4937275	50.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL( ug/L)	FINAL( ug/L)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	=====	=====	====	=====	=====	=====
Siloxane				CAS #:			
18.313	3830458	38.7912150	38.791	0		0	3
Siloxane				CAS #:			
22.254	5850951	59.2528376	59.253	0		0	3
Siloxane				CAS #:			
25.532	2246961	22.7550749	22.755	0		0	3

BKL  
3/26/03

Date : 24-MAR-03 15:38:00

Client ID: SH102-0317-D00709

Sample Info: 0303L980-001 H032401,[AL=0624C01],[DC=00]

Purge Volume: 5.0

Column phase: RTX-624

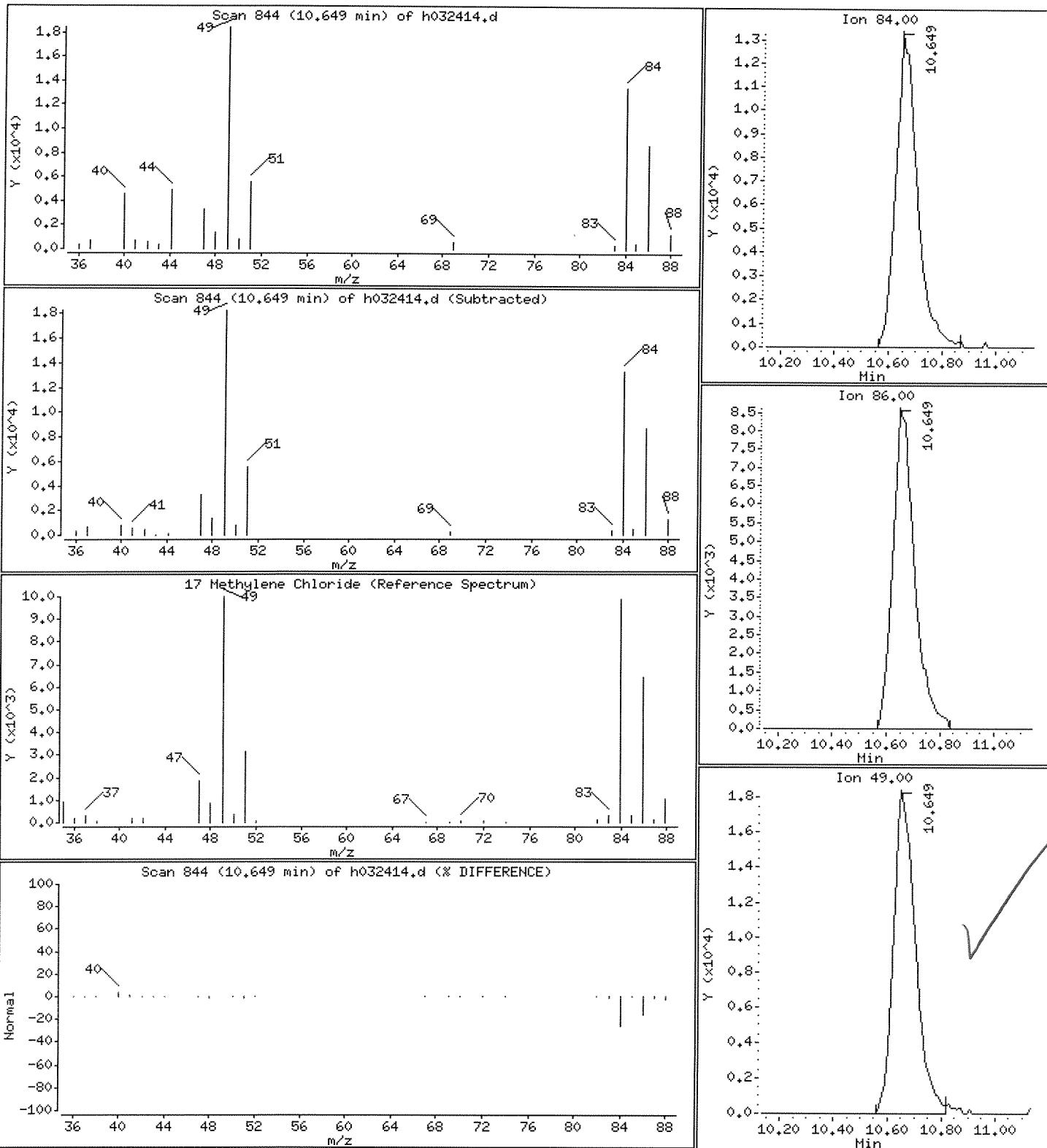
Instrument: 5972H.i

Operator: MFS

Column diameter: 0.53

## 17 Methylene Chloride

Concentration: 4.750 ug/L



Data File: /chem/msvoa3/5972h.i/h032403o.b/h032414.d

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Date : 24-MAR-03 15:38:00

Instrument: 5972H.i

Client ID: SH102-0317-D00709

Operator: MFS

Sample Info: 0303L980-001 H032401,[AL=0624C0],[DC=00]

Column diameter: 0.53

Purge Volume: 5.0

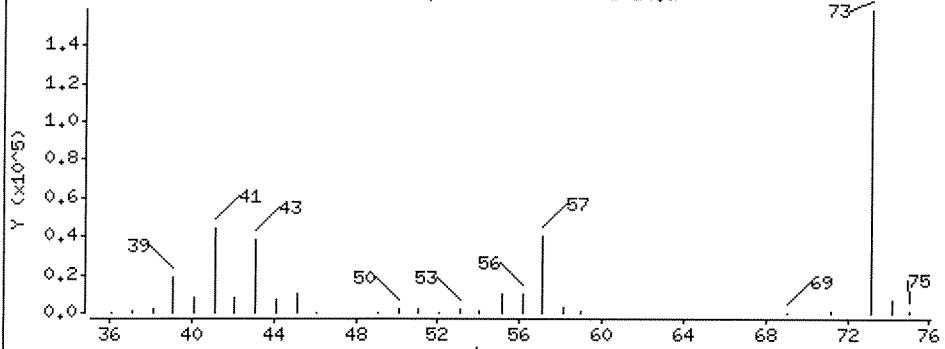
Column phase:

RTX-624

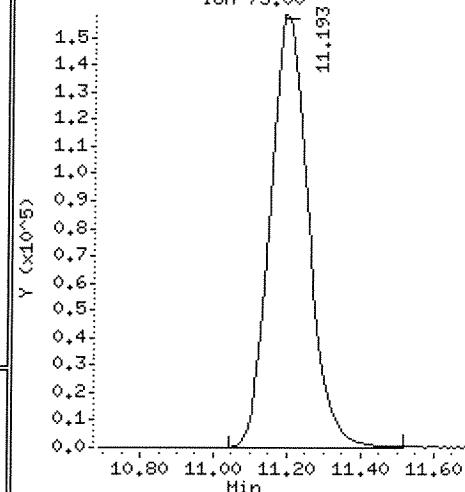
20 Methyl-T-Butylether

Concentration: 46.731 ug/L

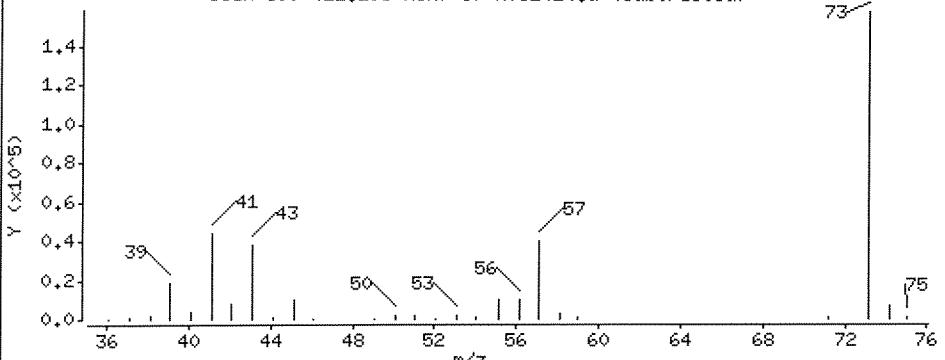
Scan 899 (11.193 min) of h032414.d



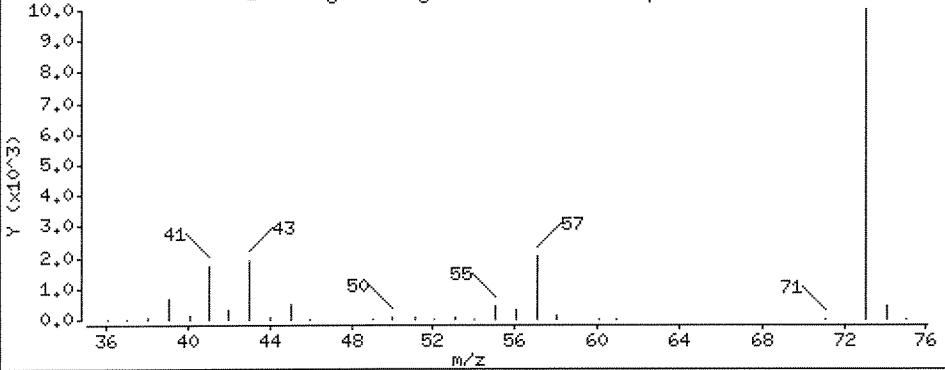
Ion 73.00



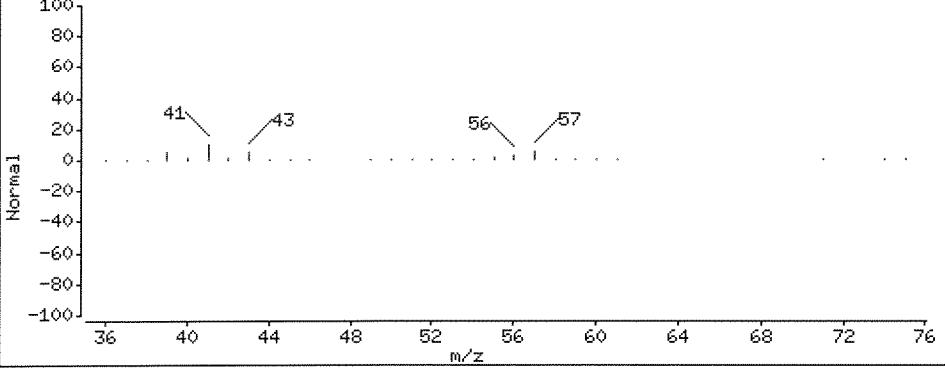
Scan 899 (11.193 min) of h032414.d (Subtracted)



20 Methyl-T-Butylether (Reference Spectrum)



Scan 899 (11.193 min) of h032414.d (% DIFFERENCE)



Date : 24-MAR-03 15:38:00

Client ID: SH102-0317-D00709

Sample Info: 0303L980-001 H032401,[AL=0624C01],[DC=001]

Purge Volume: 5.0

Column phase: RTX-624

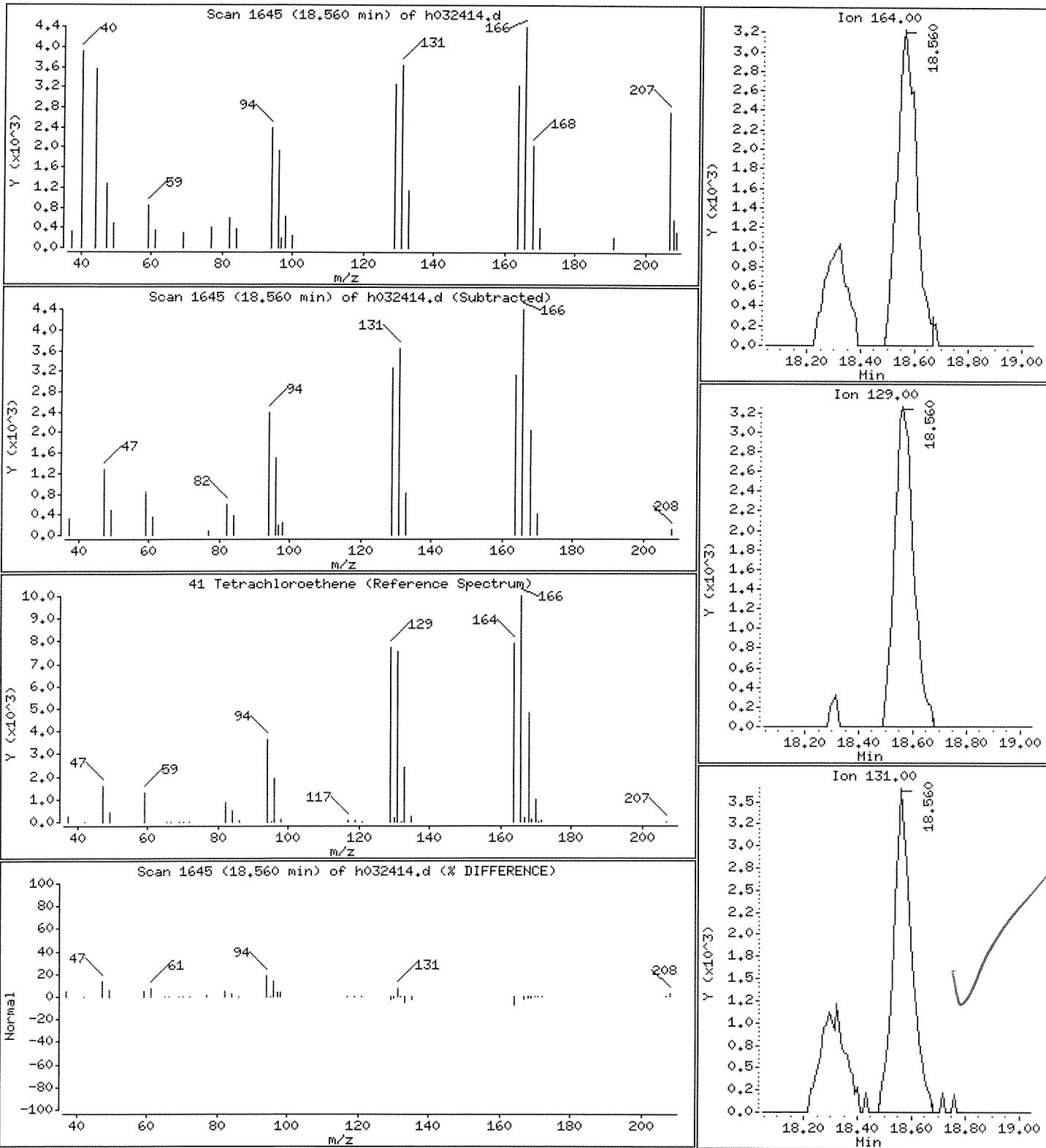
Instrument: 5972H.i

Operator: MFS

Column diameter: 0.53

## 41 Tetrachloroethene

Concentration: 1.120 ug/L



Data File: /chem/msvoa3/5972h.i/h032403a.b/h032414.d

Page 8

Date : 24-MAR-03 15:38:00

Client ID: SH102-0317-D00709

Instrument: 5972H.i

Sample Info: 0303L980-001 H032401,[AL=0624C01],[DC=00]

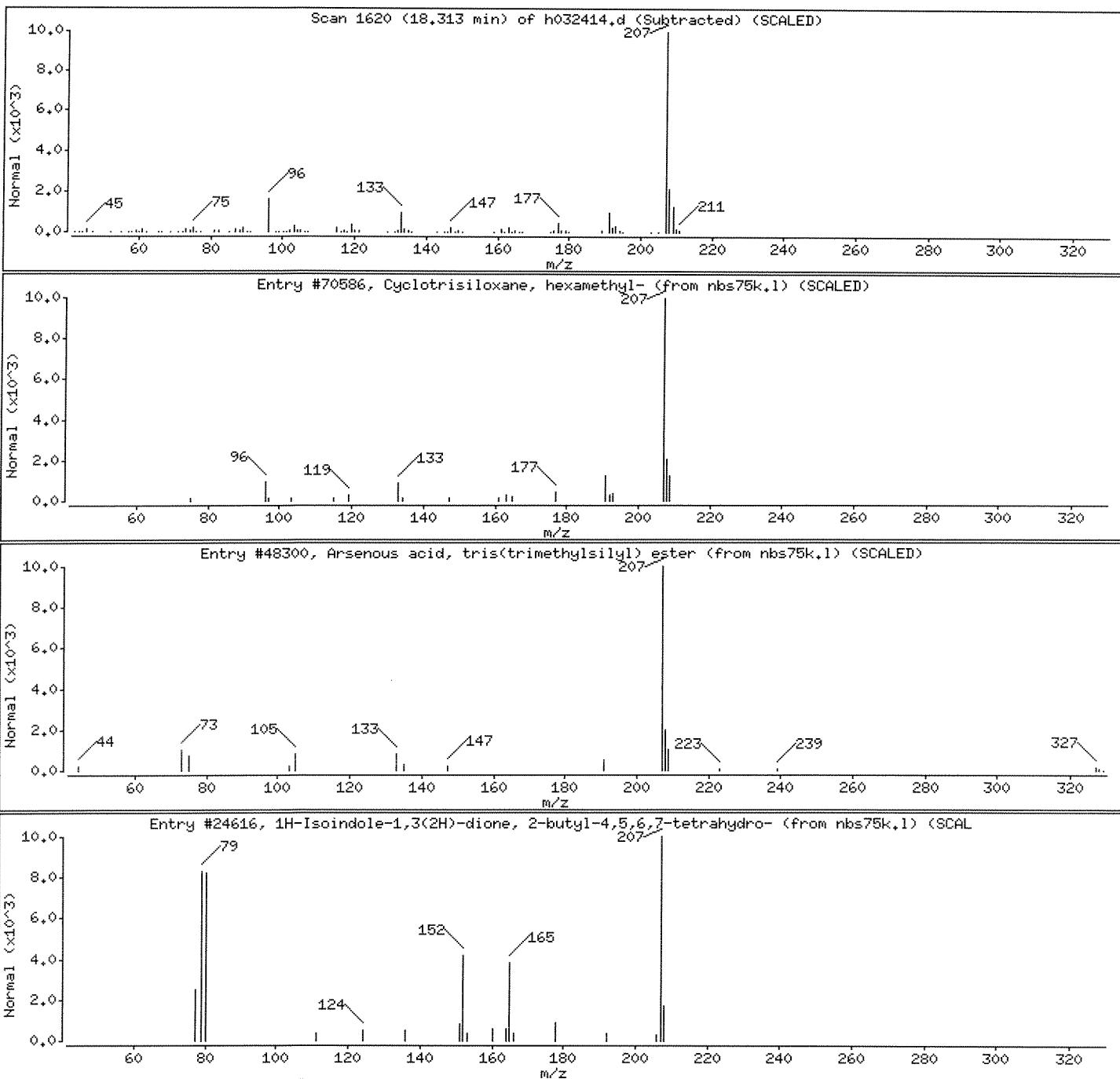
Purge Volume: 5.0

Operator: HFS

Column phase: RTX-624

Column diameter: 0.53

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Siloxane						
Cyclotrisiloxane, hexamethyl-	541-05-9	nbs75k1	70586	90	C6H18O3Si3	222
Arsenous acid, tris(trimethylsilyl) este	55429-29-3	nbs75k1	48300	50	C9H27AsO3Si3	342
1H-Isoindole-1,3(2H)-dione, 2-butyl-4,5,	54934-85-9	nbs75k1	24616	40	C12H17N02	207



Data File: /chem/msv03/5972h.i/h032403a,b/h032414.d

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Date : 24-MAR-03 15:38:00

Client ID: SH102-0317-D00709

Instrument: 5972H.i

Sample Info: 0303L980-001 H032401,[AL=062400],[IDC=00]

Purge Volume: 5.0

Operator: MFS

Column phase: RTX-624

Column diameter: 0.53

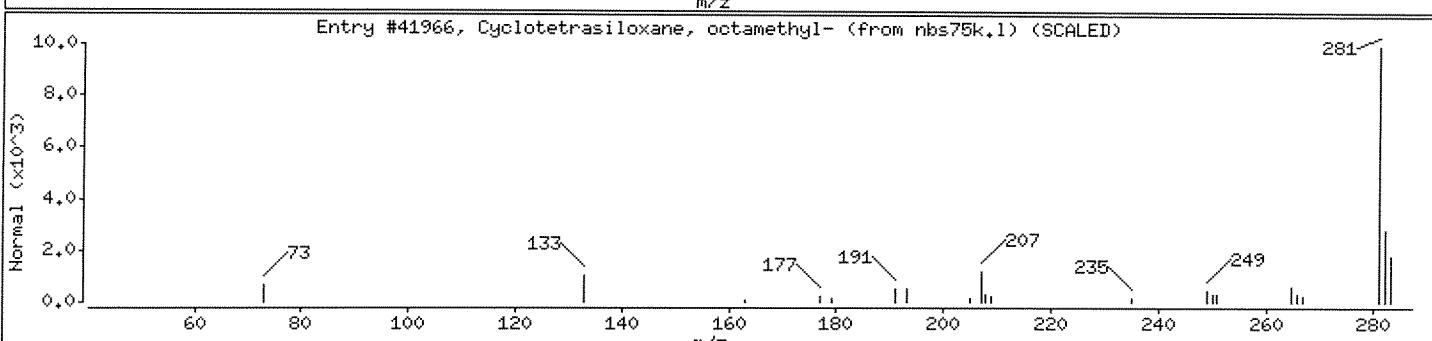
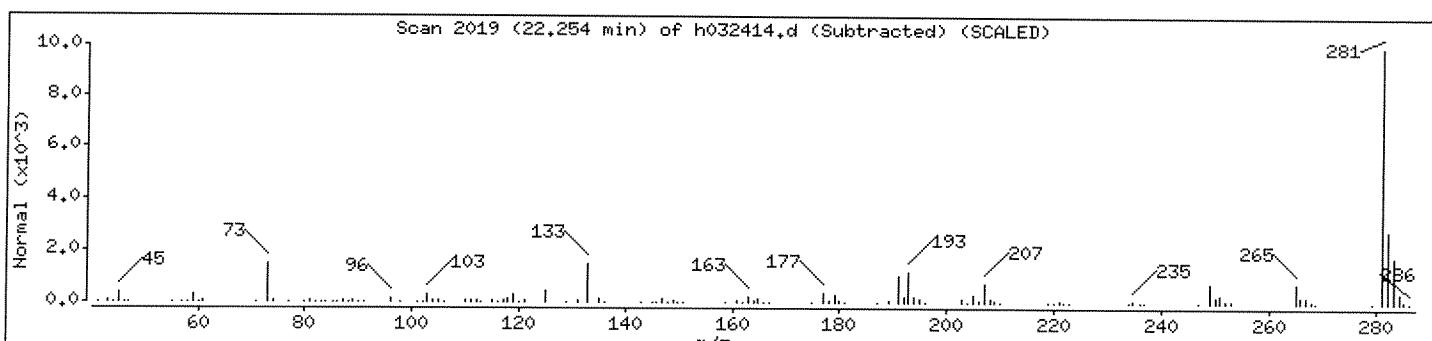
Library Search Compound Match

CAS Number Library Entry Quality Formula Weight

Siloxane

Cyclotetrasiloxane, octamethyl-

556-67-2 nbs75k,1 41966 78 C8H24O4Si4 296



Date : 24-MAR-03 15:38:00

Client ID: SH102-0317-D00709

Instrument: 5972H.i

Sample Info: 0303L980-001 H032401,[AL=0624C0],[DC=00]

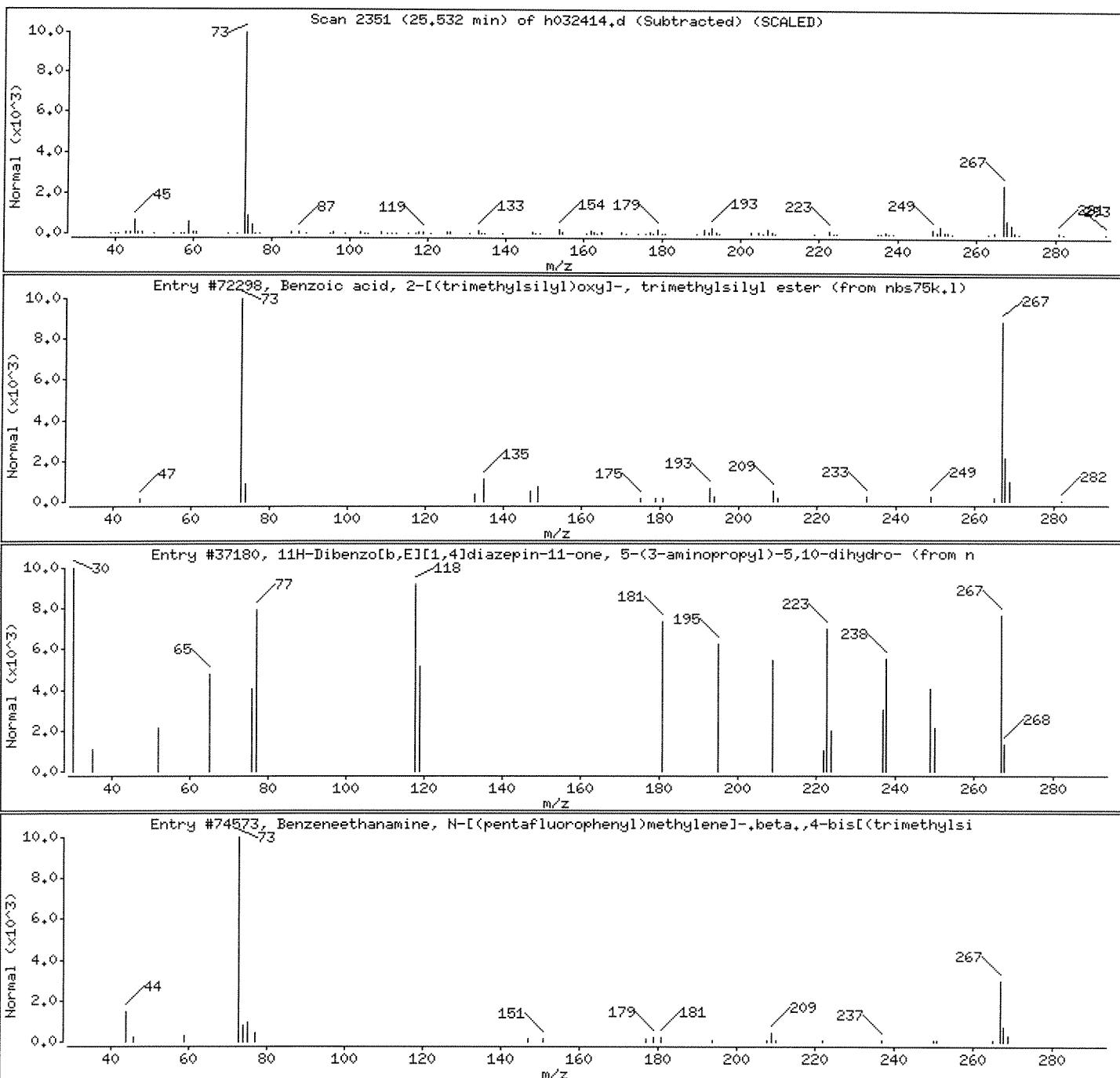
Purge Volume: 5.0

Operator: MFS

Column phase: RTX-624

Column diameter: 0.53

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Siloxane						
Benzoic acid, 2-[{(trimethylsilyl)oxy}-, 11H-Dibenzo[b,E][1,4]diazepin-11-one, 5-Benzeneethanamine, N-[(pentafluorophenyl	3789-85-3 13450-73-2 55429-85-1	nbs75k,1 nbs75k,1 nbs75k,1	72298 37180 74573	59 38 25	C13H22O3Si2 C16H17N3O C21H26F5N02S4F5	282 267 2875



## VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Lionville Labs, Inc. Contract: 01667601001

SH102-0317-D00705

Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 0303L980-002Sample wt/vol: 5.00 (g/mL) MLLab File ID: h032511Level: (low/med) LOWDate Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/25/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

75-71-8-----	Dichlorodifluoromethane	10   U
74-87-3-----	Chloromethane	10   U
75-01-4-----	Vinyl Chloride	10   U
74-83-9-----	Bromomethane	10   U
75-00-3-----	Chloroethane	10   U
75-69-4-----	Trichlorofluoromethane	10   U
75-35-4-----	1,1-Dichloroethene	10   U
76-13-1-----	1,1,2-Trichlorotrifluoroethane	10   U
67-64-1-----	Acetone	10   U
75-15-0-----	Carbon Disulfide	10   U
79-20-9-----	Methyl Acetate	10   U
75-09-2-----	Methylene Chloride	9   JB
156-60-5-----	Trans-1,2-dichloroethene	10   U
1634-04-4-----	tert-Butyl Methyl Ether	12
75-34-3-----	1,1-Dichloroethane	10   U
156-59-2-----	Cis-1,2-dichloroethene	10   U
78-93-3-----	2-Butanone	10   U
67-66-3-----	Chloroform	10   U
71-55-6-----	1,1,1-Trichloroethane	10   U
110-82-7-----	Cyclohexane	10   U
56-23-5-----	Carbon Tetrachloride	10   U
71-43-2-----	Benzene	10   U
107-06-2-----	1,2-Dichloroethane	10   U
79-01-6-----	Trichloroethene	10   U
108-87-2-----	Methylcyclohexane	10   U
78-87-5-----	1,2-Dichloropropane	10   U
75-27-4-----	Bromodichloromethane	10   U
10061-01-5-----	cis-1,3-Dichloropropene	10   U
108-10-1-----	4-Methyl-2-pentanone	10   U
108-88-3-----	Toluene	10   U
10061-02-6-----	Trans-1,3-Dichloropropene	10   U
79-00-5-----	1,1,2-Trichloroethane	10   U
127-18-4-----	Tetrachloroethene	2   J
591-78-6-----	2-Hexanone	10   U

## VOLATILE ORGANICS ANALYSIS DATA SHEET

SH102-0317-D00705

Lab Name: Lionville Labs, Inc. Contract: 01667601001Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 0303L980-002Sample wt/vol: 5.00 (g/mL) MLLab File ID: h032511Level: (low/med) LOWDate Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/25/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
124-48-1-----	Dibromochloromethane	10   U	
106-93-4-----	1,2-Dibromoethane	10   U	
108-90-7-----	Chlorobenzene	10   U	
100-41-4-----	Ethylbenzene	10   U	
1330-20-7-----	Xylene (total)	10   U	
100-42-5-----	Styrene	10   U	
75-25-2-----	Bromoform	10   U	
98-82-8-----	Isopropylbenzene	10   U	
79-34-5-----	1,1,2,2-Tetrachloroethane	10   U	
541-73-1-----	1,3-Dichlorobenzene	10   U	
106-46-7-----	1,4-Dichlorobenzene	10   U	
95-50-1-----	1,2-Dichlorobenzene	10   U	
96-12-8-----	1,2-Dibromo-3-chloropropane	10   U	
120-82-1-----	1,2,4-Trichlorobenzene	10   U	

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SH102-0317-D00705

Lab Name: Lionville Labs, Inc. Contract: 01667601001Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 0303L980-002Sample wt/vol: 5.00 (g/mL) MLLab File ID: h032511Level: (low/med) LOWDate Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/25/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 3

## CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	SILOXANE	18.306	50	J
2.	SILOXANE	22.256	60	J
3.	SILOXANE	25.535	40	J

Data File: /chem/msv0a3/5972h.i/h032503o.b/h032511.d  
Date : 28-MAR-03 13:59:00

Client ID: SH02-0317-JD00705

Sample Info: 0303L980-002 H032501,[AL=0624C01,LDC=00]

Purge Volume: 5.0

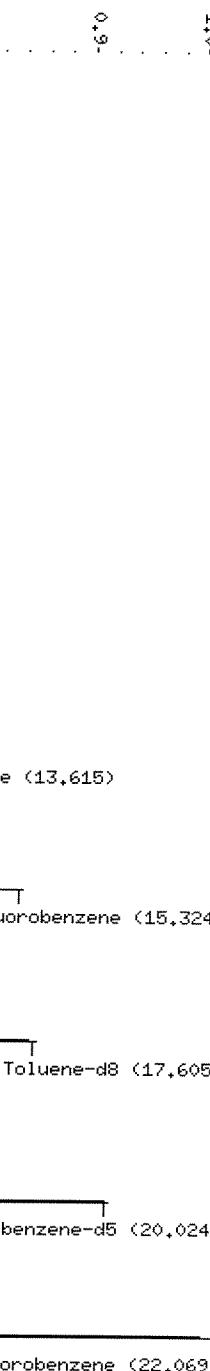
Column Phase: RTX-624

Page 4

44

Instrument: 5972H.i  
Operator: HFS  
Column diameter: 0.53

/chem/msv0a3/5972h.i/h032503o.b/h032511.d



Lionville Laboratory Inc.

Data file : /chem/msvoa3/5972h.i/h032503o.b/h032511.d  
Lab Smp Id: 0303L980-002 Client Smp ID: SH102-0317-D00705  
Inj Date : 25-MAR-03 13:59:00  
Operator : MFS Inst ID: 5972H.i  
Smp Info : 0303L980-002 H032501, [AL=0624CO], [DC=00]  
Misc Info : DIL,1,NYSDEC 5ML  
Comment :  
Method : /chem/msvoa3/5972h.i/h032503o.b/olm4.1w.m ✓  
Meth Date : 26-Mar-03 10:34:08 rubinob Quant Type: ISTD ✓  
Cal Date : 25-MAR-03 07:44:00 Cal File: h032502.d ✓  
Als bottle: 12  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 0624CO.sub✓  
Target Version: 3.30  
Processing Host: hp4920a

Concentration Formula: Uf/Vo

Name	Value	Description
Uf	5.000	ng unit correction factor ✓
Vo	5.000	Sample Volume purged (mL)

Compounds	MASS	RT	QUANT SIG		RESPONSE	CONCENTRATIONS	
			EXP RT	REL RT		( ug/L)	FINAL ( ug/L)
* 1 Bromochloromethane	128	13.615	13.602	(1.000)	414045	50.0000	
* 2 1,4-Difluorobenzene	114	15.324	15.321	(1.000)	1676786	50.0000	
* 3 Chlorobenzene-d5	117	20.024	20.012	(1.000)	1389648	50.0000	
\$ 4 1,2-Dichloroethane-d4	65	14.622	14.610	(1.074)	672642	47.8093	47.809
\$ 5 Toluene-d8	98	17.605	17.592	(0.879)	1444538	54.0550	54.055
\$ 6 Bromofluorobenzene	95	22.069	22.056	(1.102)	1085908	47.5999	47.600
68 Dichlorodifluoromethane	85.00		Compound Not Detected.				
7 Chloromethane	50.00		Compound Not Detected.				
8 Vinyl Chloride	62.00		Compound Not Detected.				
9 Bromomethane	94.00		Compound Not Detected.				
10 Chloroethane	64.00		Compound Not Detected.				
11 Trichlorofluoromethane	101.00		Compound Not Detected.				
14 1,1-Dichloroethene	96.00		Compound Not Detected.				
65 Freon-113	151.00		Compound Not Detected.				
16 Acetone	43	9.694	9.691	(0.712)	2110	0.92092	0.9209(a)
15 Carbon Disulfide	76.00		Compound Not Detected.				
69 Methyl Acetate	43.00		Compound Not Detected.				

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
17 Methylene Chloride	84		10.642	10.639 (0.782)		116406	8.50618	8.506(a) ✓
19 trans-1,2-Dichloroethene	96.00			Compound Not Detected.				
20 Methyl-T-Butylether	73		11.205	11.193 (0.823)		246834	11.7789	11.779 ✓
23 1,1-Dichloroethane	63.00			Compound Not Detected.				
25 cis-1,2-Dichloroethene	96.00			Compound Not Detected.				
26 2-Butanone	43.00			Compound Not Detected.				
27 Chloroform	83.00			Compound Not Detected.				
28 1,1,1-Trichloroethane	97.00			Compound Not Detected.				
70 Cyclohexane	56.00			Compound Not Detected.				
29 Carbon Tetrachloride	117.00			Compound Not Detected.				
30 Benzene	78.00			Compound Not Detected.				
31 1,2-Dichloroethane	62.00			Compound Not Detected.				
32 Trichloroethene	130.00			Compound Not Detected.				
71 Methylcyclohexane	83.00			Compound Not Detected.				
33 1,2-Dichloropropane	63.00			Compound Not Detected.				
34 Bromodichloromethane	83.00			Compound Not Detected.				
36 cis-1,3-Dichloropropene	75.00			Compound Not Detected.				
37 4-Methyl-2-Pentanone	43.00			Compound Not Detected.				
38 Toluene	91.00			Compound Not Detected.				
39 trans-1,3-Dichloropropene	75	18.316	18.214 (1.195)		46033	2.93668	2.937(a) ✓	
40 1,1,2-Trichloroethane	97.00			Compound Not Detected.				
41 Tetrachloroethene	164	18.563	18.550 (0.927)		33312	2.47131	2.471(a) ✓	
43 2-Hexanone	43.00			Compound Not Detected.				
42 Dibromochloromethane	129.00			Compound Not Detected.				
72 1,2-Dibromoethane	107.00			Compound Not Detected.				
44 Chlorobenzene	112.00			Compound Not Detected.				
45 Ethylbenzene	106.00			Compound Not Detected.				
46 m & p-Xylene	106.00			Compound Not Detected.				
47 o-Xylene	106.00			Compound Not Detected.				
M 48 Xylenes (Total)	106.00			Compound Not Detected.				
49 Styrene	104.00			Compound Not Detected.				
50 Bromoform	173.00			Compound Not Detected.				
73 Isopropylbenzene	105.00			Compound Not Detected.				
51 1,1,2,2-Tetrachloroethane	83.00			Compound Not Detected.				
52 1,3-Dichlorobenzene	146.00			Compound Not Detected.				
53 1,4-Dichlorobenzene	146.00			Compound Not Detected.				
54 1,2-Dichlorobenzene	146.00			Compound Not Detected.				
74 1,2-Dibromo-3-Chloropropane	75.00			Compound Not Detected.				
75 1,2,4-Trichlorobenzene	180.00			Compound Not Detected.				

#### QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

PL  
3/26/03

Lionville Laboratory Inc.

Data file : /chem/msvoa3/5972h.i/h032503o.b/h032511.d  
Lab Smp Id: 0303L980-002 Client Smp ID: SH102-0317-D00705  
Inj Date : 25-MAR-03 13:59:00  
Operator : MFS Inst ID: 5972H.i  
Smp Info : 0303L980-002 H032501, [AL=0624CO], [DC=00]  
Misc Info : DIL,1,NYSDEC 5ML  
Comment :  
Method : /chem/msvoa3/5972h.i/h032503o.b/olm4.1w.m  
Meth Date : 26-Mar-03 10:34:08 rubinob Quant Type: ISTD  
Cal Date : 25-MAR-03 07:44:00 Cal File: h032502.d  
Als bottle: 12  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 0624CO.sub  
Target Version: 3.30  
Processing Host: hp4920a

Concentration Formula: Uf/Vo

Name	Value	Description
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 3 Chlorobenzene-d5	20.024	4430428	50.000

RT	AREA	CONCENTRATIONS		QUAL	QUANT		
		ON-COL( ug/L)	FINAL( ug/L)		LIBRARY	LIB ENTRY	CPND #
<hr/>							
Siloxane				CAS #:			
18.306	4827446	54.4805802	54.480	0		0	3
Siloxane				CAS #:			
22.256	5369445	60.5973564	60.597	0		0	3
Siloxane				CAS #:			
25.535	3920750	44.2479758	44.248	0		0	3

3/26/03

Date : 25-MAR-03 13:59:00

Client ID: SH102-0317-D00705

Instrument: 5972H.i

Sample Info: 0303L980-002 H032501,[AL=0624C01],[DC=00]

Purge Volume: 5.0

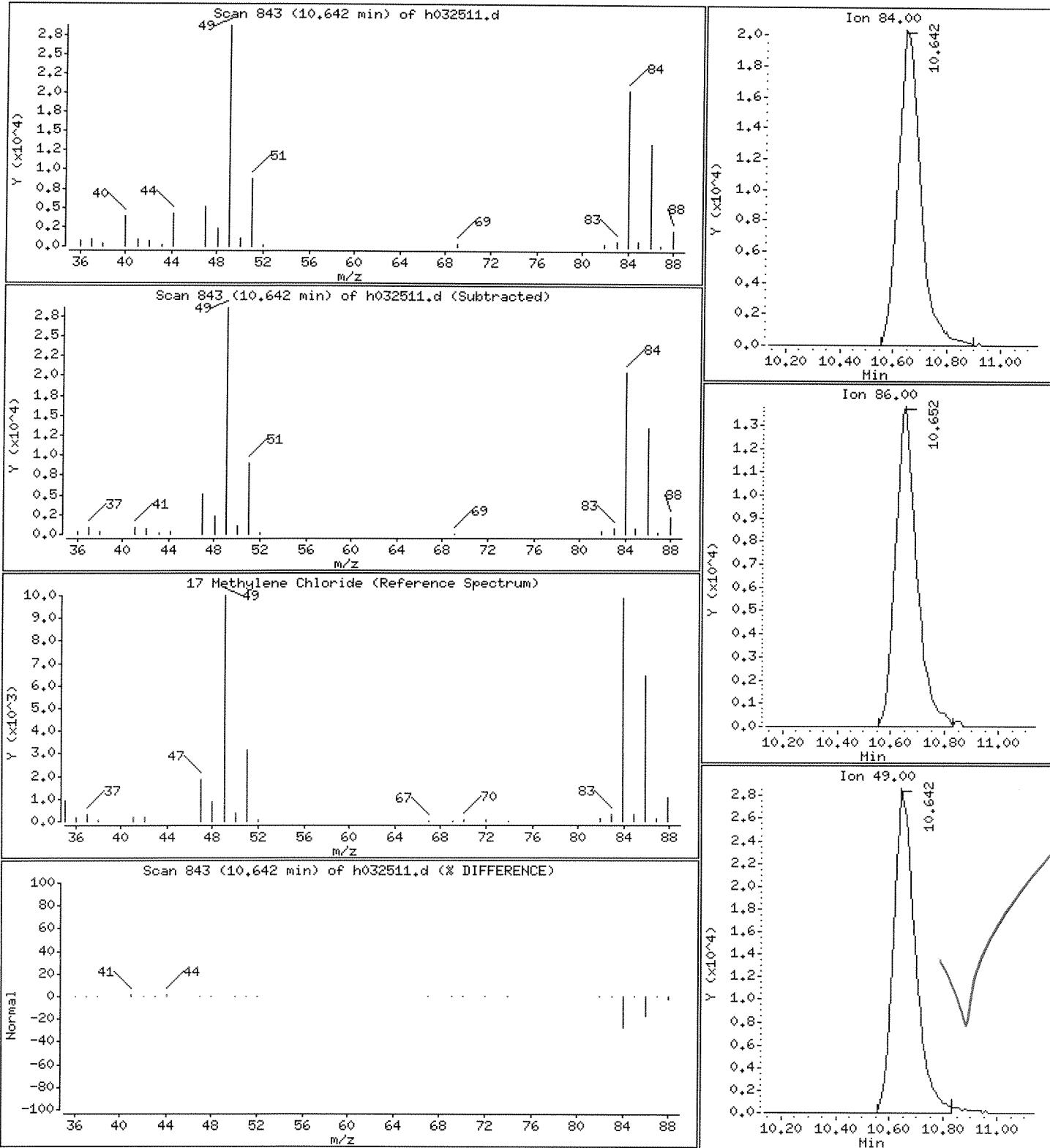
Operator: MFS

Column phase: RTX-624

Column diameter: 0.53

## 17 Methylene Chloride

Concentration: 8.506 ug/L



Data File: /chem/msvoa3/5972h.i/h032503a,b/h032511.d

Page 7

Date : 25-MAR-03 13:59:00

Client ID: SH102-0317-D00705

Instrument: 5972H,i

Sample Info: 0303L980-002 H032501,[AL=0624C0],[DC=00]

Purge Volume: 5.0

Operator: MFS

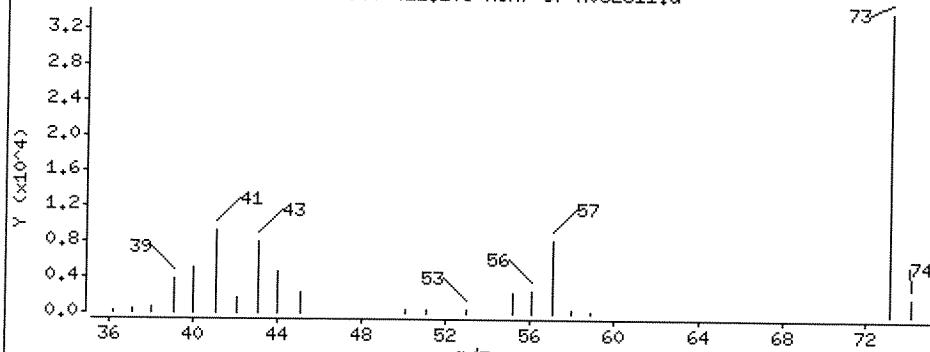
Column phase: RTX-624

Column diameter: 0.53

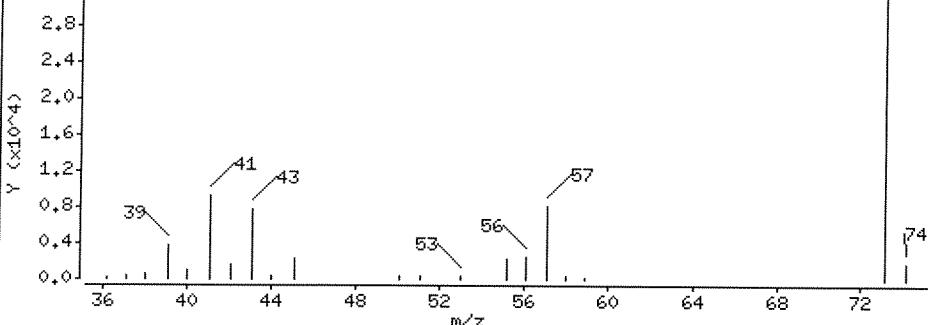
20 Methyl-T-Butylether

Concentration: 11.779 ug/L

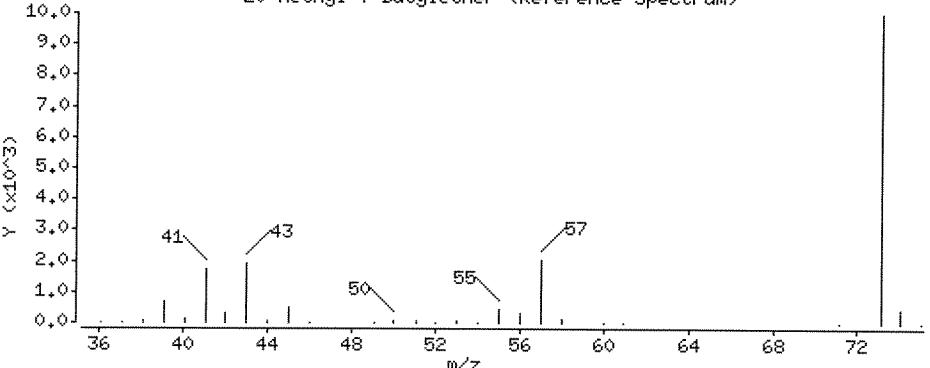
Scan 900 (11.205 min) of h032511.d



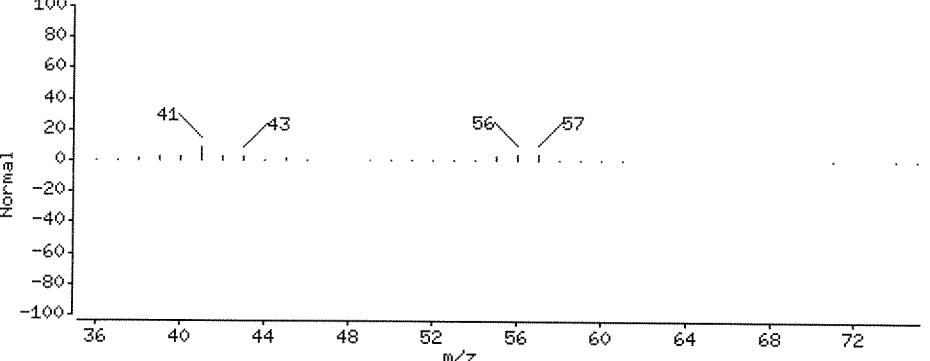
Scan 900 (11.205 min) of h032511.d (Subtracted)



20 Methyl-T-Butylether (Reference Spectrum)



Scan 900 (11.205 min) of h032511.d (% DIFFERENCE)



Data File: /chem/msvoa3/5972h.i/h032503o.b/h032511.d

Page 9

Date : 25-MAR-03 13:59:00

Client ID: SH102-0317-D00705

Instrument: 5972H.i

Sample Info: 0303L980-002 H032501,[AL=0624C01],[DC=00]

Purge Volume: 5.0

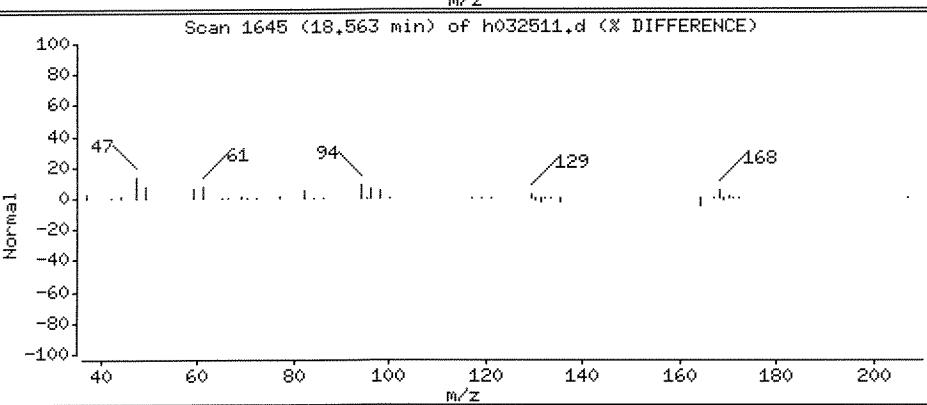
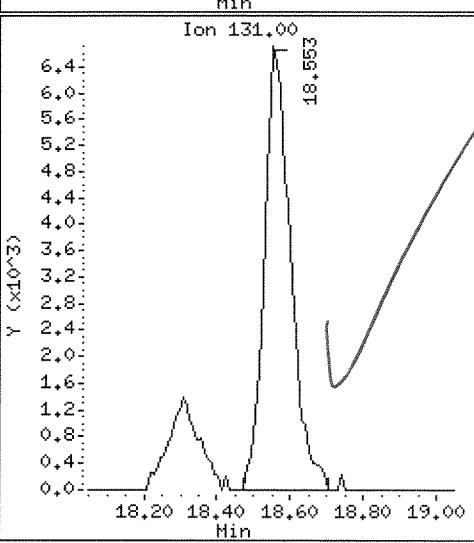
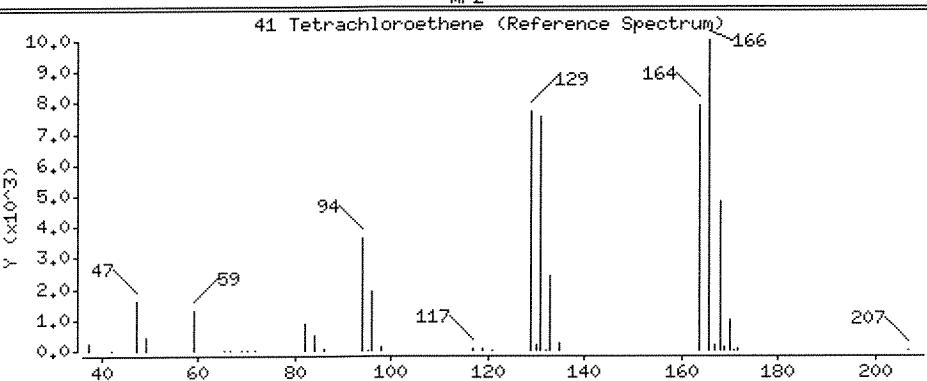
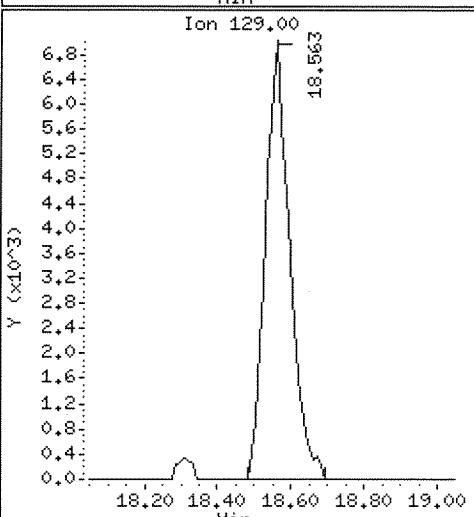
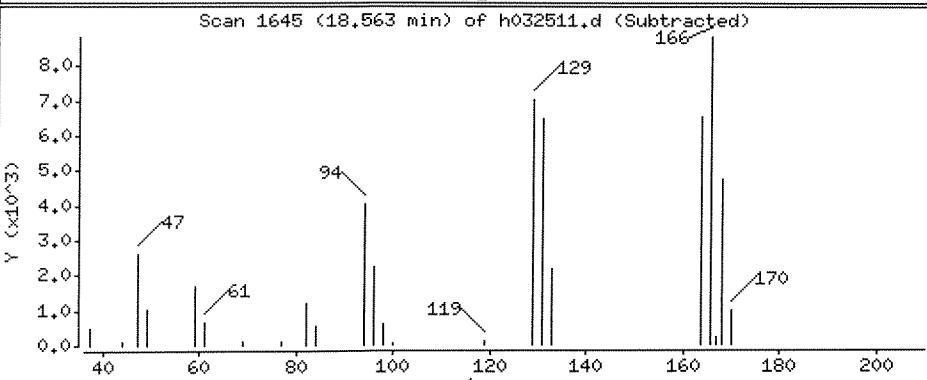
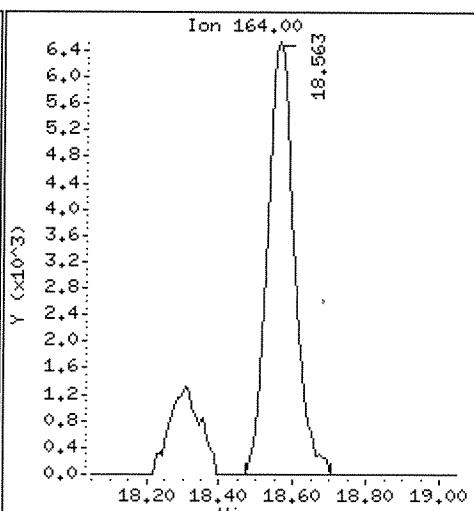
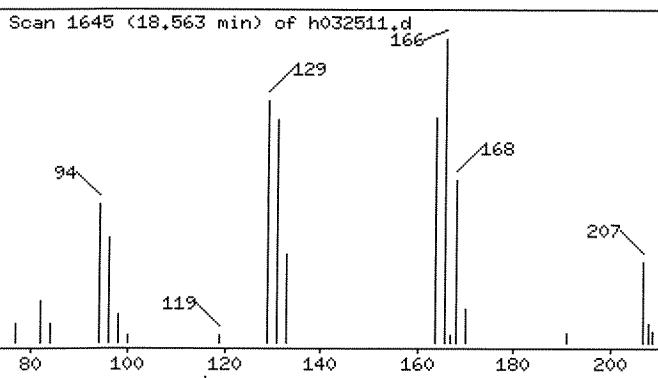
Operator: MFS

Column phase: RTX-624

Column diameter: 0.53

#### 41 Tetrachloroethene

Concentration: 2.471 ug/L



50

Data File: /chem/msvoa3/5972h.i/h032503o.b/h032511.d

Page 8

Date : 25-MAR-03 13:59:00

Client ID: SH102-0317-D00705

Instrument: 5972H.i

Sample Info: 0303L980-002 H032501,[AL=0624C0],[DC=00]

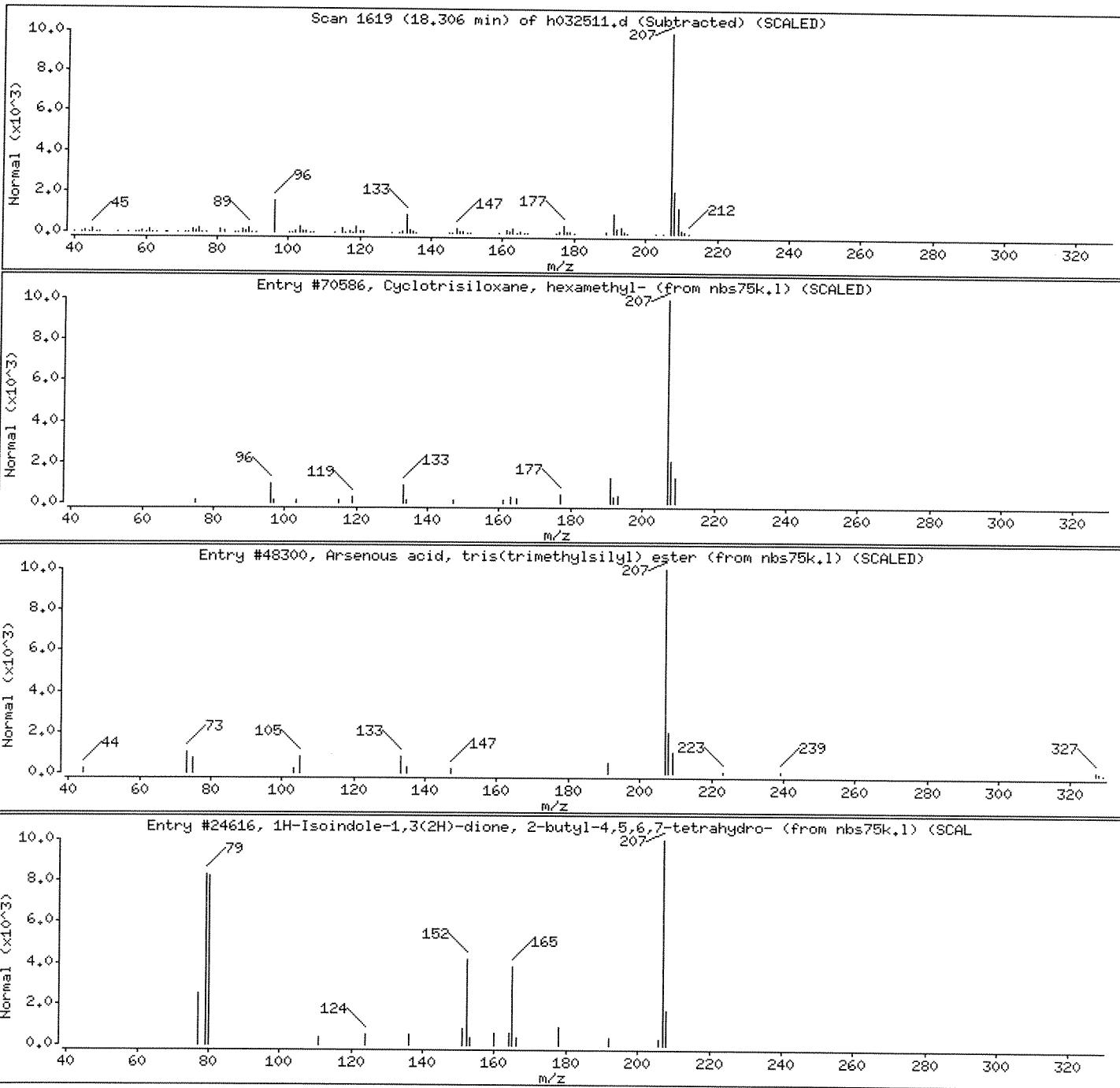
Purge Volume: 5.0

Operator: MFS

Column phase: RTX-624

Column diameter: 0.53

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Siloxane						
Cyclotrisiloxane, hexamethyl-	541-05-9	nbs75k,1	70586	83	C6H18O3Si3	222
Arsenous acid, tris(trimethylsilyl) ester	55429-29-3	nbs75k,1	48300	56	C9H27AsO3Si3	342
1H-Isoindole-1,3(2H)-dione, 2-butyl-4,5,	54934-85-9	nbs75k,1	24616	40	C12H17N02	207



Date : 25-MAR-03 13:59:00

Client ID: SH102-0317-D00705

Instrument: 5972H.i

Sample Info: 0303L980-002 H032501,[AL=0624C01],[DC=001]

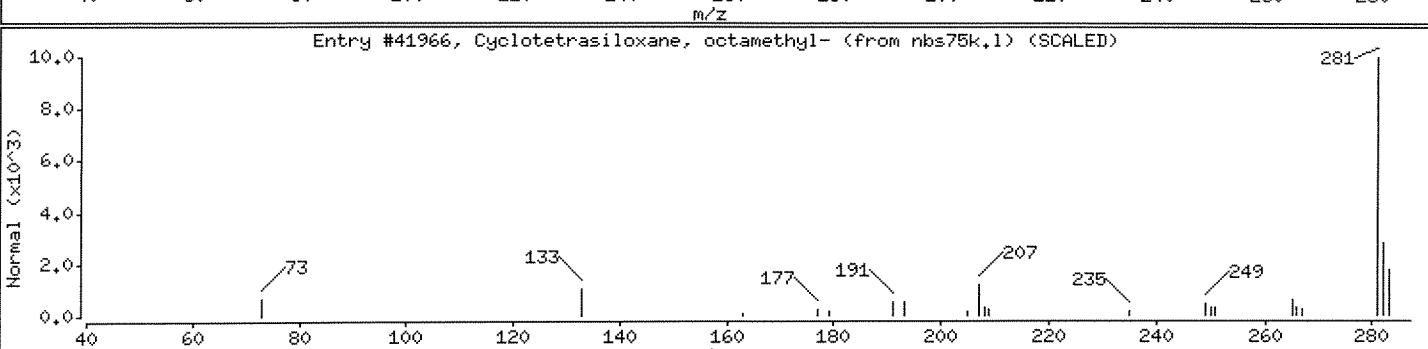
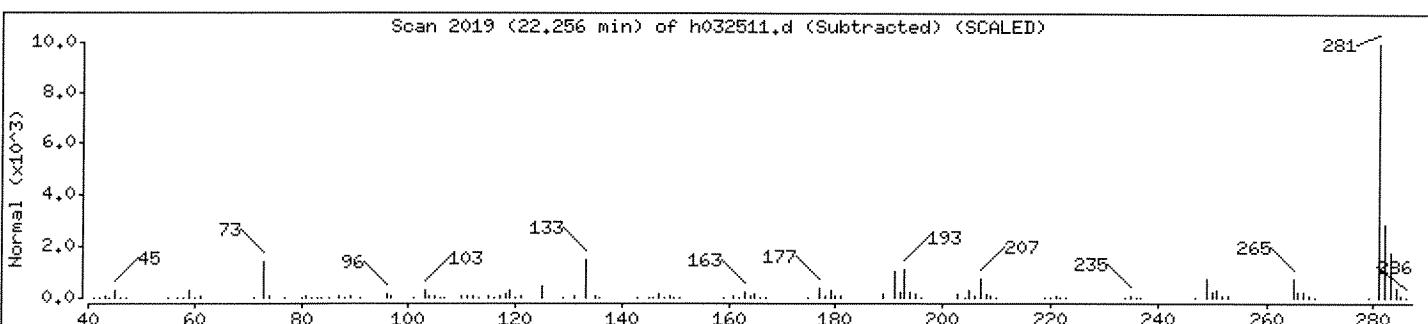
Purge Volume: 5.0

Operator: MFS

Column phaset: RTX-624

Column diameter: 0.53

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Siloxane Cyclotetrasiloxane, octamethyl-	556-67-2	nbs75k+1	41966	64	C8H24O4Si4	296



Date : 25-MAR-03 13:59:00

Client ID: SH102-0317-D00705

Instrument: 5972H.i

Sample Info: 0303L980-002 H032501,[AL=0624C01],[IDC=001]

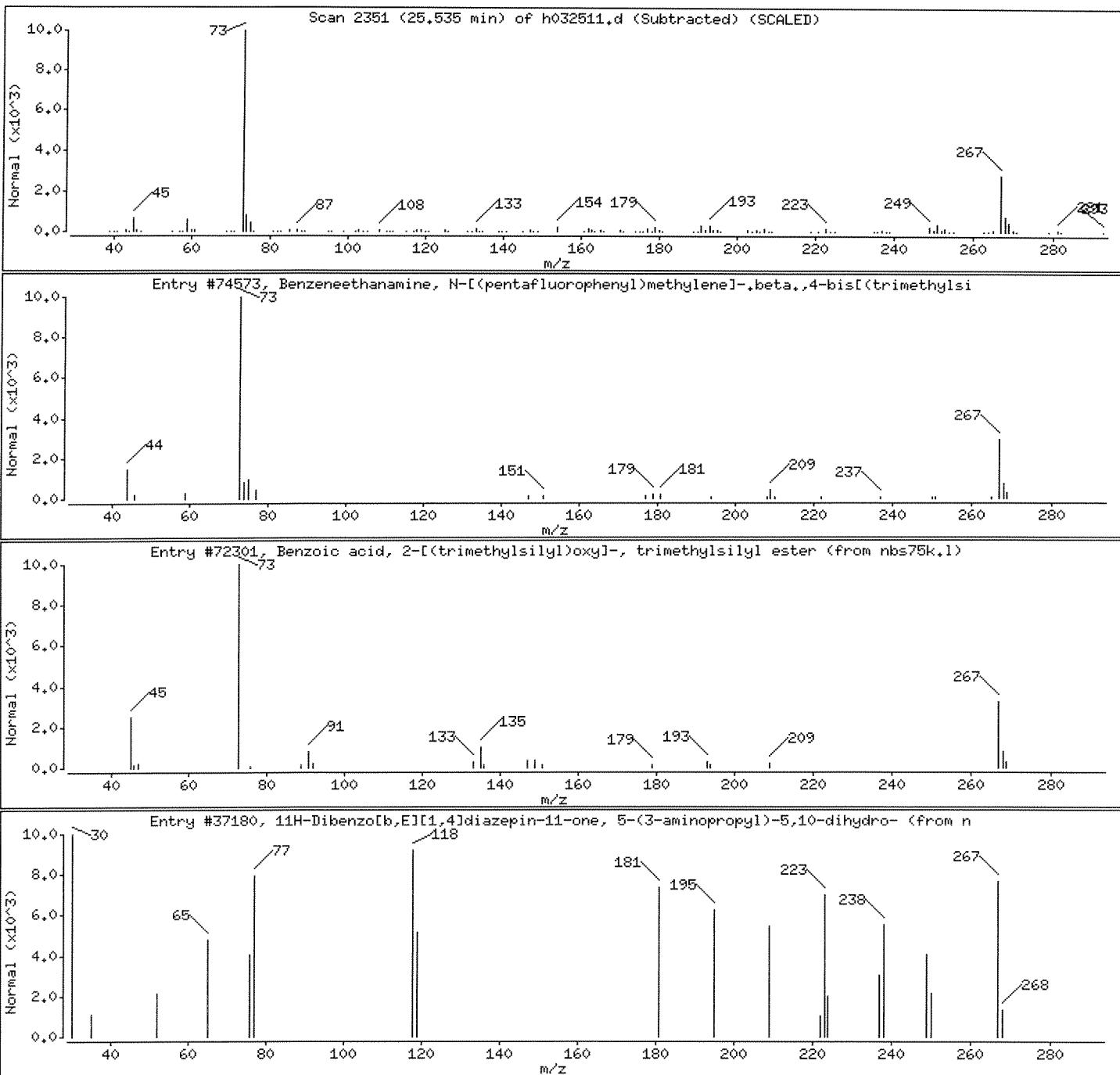
Purge Volume: 5.0

Operator: MFS

Column phase: RTX-624

Column diameter: 0.53

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Siloxane						
Benzeneethanamine, N-[{(pentafluorophenyl	55429-85-1	nbs75k.1	74573	45	C21H26F5N02Si275	
Benzoic acid, 2-[(trimethylsilyl)oxy]-,	3789-85-3	nbs75k.1	72301	36	C13H22O3Si2 282	
11H-Dibenzo[b,e][1,4]diazepin-11-one, 5-	13450-73-2	nbs75k.1	37180	22	C16H17N3O 267	



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SH102-0317-D00704

Lab Name: Lionville Labs, Inc. Contract: 01667601001

Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATER

Lab Sample ID: 0303L980-003

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: h032416

Level: (low/med) LOW

Date Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
75-71-8-----	Dichlorodifluoromethane _____	10   U	
74-87-3-----	Chloromethane _____	10   U	
75-01-4-----	Vinyl Chloride _____	10   U	
74-83-9-----	Bromomethane _____	10   U	
75-00-3-----	Chloroethane _____	10   U	
75-69-4-----	Trichlorofluoromethane _____	10   U	
75-35-4-----	1,1-Dichloroethene _____	10   U	
76-13-1-----	1,1,2-Trichlorotrifluoroethane _____	10   U	
67-64-1-----	Acetone _____	10   U	
75-15-0-----	Carbon Disulfide _____	10   U	
79-20-9-----	Methyl Acetate _____	10   U	
75-09-2-----	Methylene Chloride _____	3   JB	
156-60-5-----	Trans-1,2-dichloroethene _____	10   U	
1634-04-4-----	tert-Butyl Methyl Ether _____	10   U	
75-34-3-----	1,1-Dichloroethane _____	10   U	
156-59-2-----	Cis-1,2-dichloroethene _____	10   U	
78-93-3-----	2-Butanone _____	10   U	
67-66-3-----	Chloroform _____	10   U	
71-55-6-----	1,1,1-Trichloroethane _____	10   U	
110-82-7-----	Cyclohexane _____	10   U	
56-23-5-----	Carbon Tetrachloride _____	10   U	
71-43-2-----	Benzene _____	10   U	
107-06-2-----	1,2-Dichloroethane _____	10   U	
79-01-6-----	Trichloroethene _____	10   U	
108-87-2-----	Methylcyclohexane _____	10   U	
78-87-5-----	1,2-Dichloropropane _____	10   U	
75-27-4-----	Bromodichloromethane _____	10   U	
10061-01-5-----	cis-1,3-Dichloropropene _____	10   U	
108-10-1-----	4-Methyl-2-pentanone _____	10   U	
108-88-3-----	Toluene _____	10   U	
10061-02-6-----	Trans-1,3-Dichloropropene _____	10   U	
79-00-5-----	1,1,2-Trichloroethane _____	10   U	
127-18-4-----	Tetrachloroethene _____	3   J	
591-78-6-----	2-Hexanone _____	10   U	

## VOLATILE ORGANICS ANALYSIS DATA SHEET

SH102-0317-D00704

Lab Name: Lionville Labs, Inc. Contract: 01667601001Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 0303L980-003Sample wt/vol: 5.00 (g/mL) MLLab File ID: h032416Level: (low/med) LOWDate Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) ug/L

Q

124-48-1-----Dibromochloromethane	10	U
106-93-4-----1,2-Dibromoethane	10	U
108-90-7-----Chlorobenzene	10	U
100-41-4-----Ethylbenzene	10	U
1330-20-7-----Xylene (total)	10	U
100-42-5-----Styrene	10	U
75-25-2-----Bromoform	10	U
98-82-8-----Isopropylbenzene	10	U
79-34-5-----1,1,2,2-Tetrachloroethane	10	U
541-73-1-----1,3-Dichlorobenzene	10	U
106-46-7-----1,4-Dichlorobenzene	10	U
95-50-1-----1,2-Dichlorobenzene	10	U
96-12-8-----1,2-Dibromo-3-chloropropane	10	U
120-82-1-----1,2,4-Trichlorobenzene	10	U

FORM 1 V-2

3/90

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SH102-0317-D00704

Lab Name: Lionville Labs, Inc. Contract: 01667601001Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 0303L980-003Sample wt/vol: 5.00 (g/mL) MLLab File ID: h032416Level: (low/med) LOWDate Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

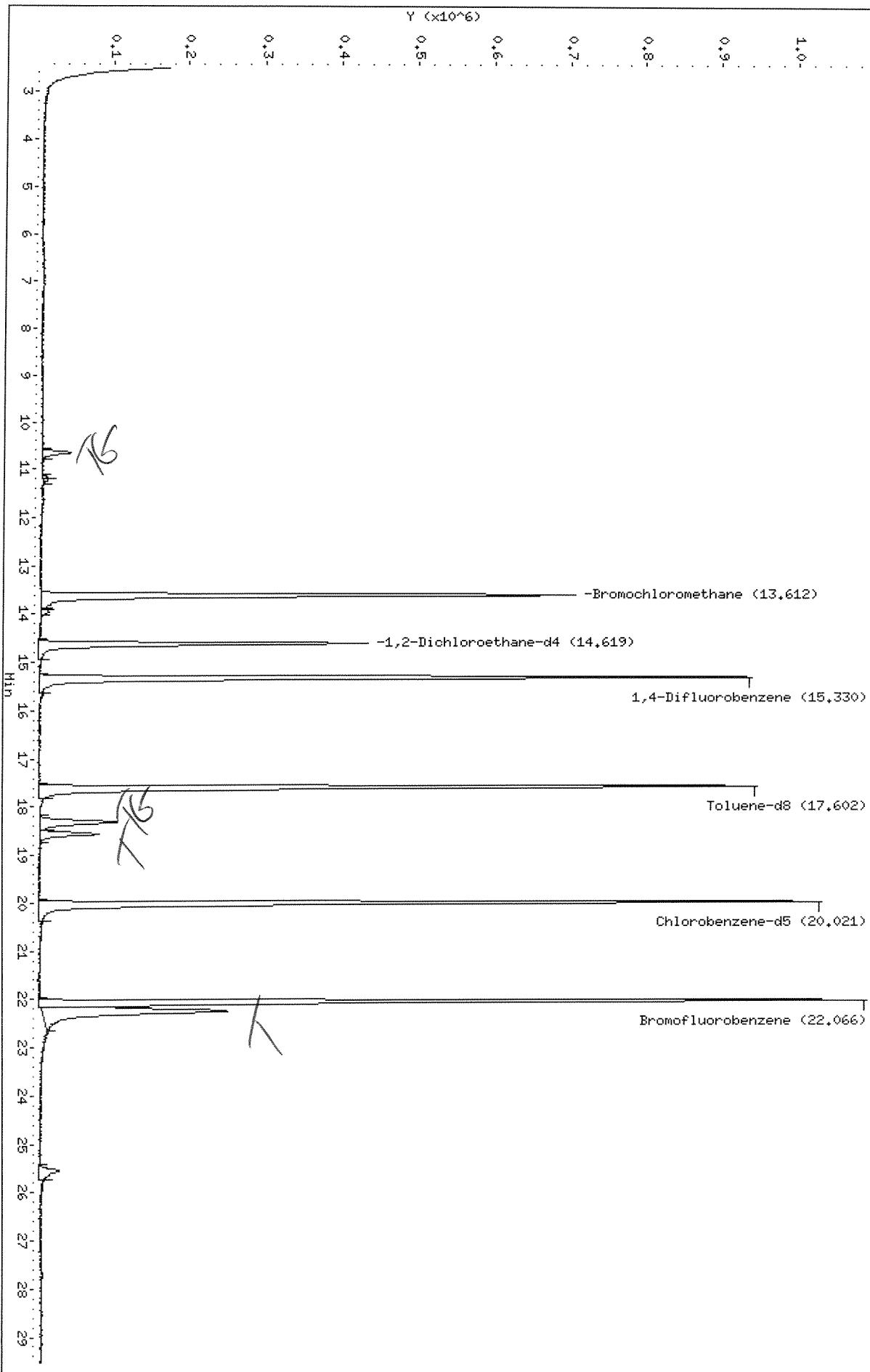
Number TICs found: 2(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	SILOXANE	18.313	7	J
2.	SILOXANE	22.263	20	J

Data File: /chem/mswoa3/5972h.i/h0324030.b/h032416.d  
Date : 24-MAR-03 16:49:00  
Client ID: SH102-0317-D00704  
Sample Info: 0303L980-003 H032401, [AL=0624C01, [DC=00]  
Purge Volume: 5.0  
Column phase: RTX-624

Instrument: 5972H.i  
Operator: MFS  
Column diameter: 0.53

/chem/mswoa3/5972h.i/h0324030.b/h032416.d



Lionville Laboratory Inc.

Data file : /chem/msvoa3/5972h.i/h032403o.b/h032416.d  
Lab Smp Id: 0303L980-003 Client Smp ID: SH102-0317-D00704  
Inj Date : 24-MAR-03 16:49:00  
Operator : MFS Inst ID: 5972H.i  
Smp Info : 0303L980-003 H032401, [AL=O624CO], [DC=00]  
Misc Info : DIL,1,WSRC 5ML  
Comment :  
Method : /chem/msvoa3/5972h.i/h032403o.b/olm4.1w.m  
Meth Date : 26-Mar-03 10:32:50 rubinob Quant Type: ISTD ✓  
Cal Date : 24-MAR-03 08:50:00 Cal File: h032403.d ✓  
Als bottle: 3  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: O624CO.sub ✓  
Target Version: 3.30  
Processing Host: hp4920a

Concentration Formula: Uf/Vo

Name	Value	Description
Uf	5.000	ng unit correction factor ✓
Vo	5.000	Sample Volume purged (mL)

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	( ug/L)	FINAL
*	1 Bromochloromethane	128	13.622	13.605	(1.000)	451023	50.0000	
*	2 1,4-Difluorobenzene	114	15.330	15.314	(1.000)	1855833	50.0000	
*	3 Chlorobenzene-d5	117	20.021	20.015	(1.000)	1491467	50.0000	
\$	4 1,2-Dichloroethane-d4	65	14.619	14.603	(1.073)	759362	46.9692	46.969
\$	5 Toluene-d8	98	17.602	17.585	(0.879)	1564572	51.4619	51.462
\$	6 Bromofluorobenzene	95	22.066	22.059	(1.102)	1149124	44.7918	44.792
68	Dichlorodifluoromethane	85.00	Compound Not Detected.					
7	Chloromethane	50.00	Compound Not Detected.					
8	Vinyl Chloride	62.00	Compound Not Detected.					
9	Bromomethane	94.00	Compound Not Detected.					
10	Chloroethane	64.00	Compound Not Detected.					
11	Trichlorofluoromethane	101.00	Compound Not Detected.					
14	1,1-Dichloroethene	96.00	Compound Not Detected.					
65	Freon-113	151.00	Compound Not Detected.					
16	Acetone	43.00	Compound Not Detected.					
15	Carbon Disulfide	76.00	Compound Not Detected.					
69	Methyl Acetate	43.00	Compound Not Detected.					

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN ( ug/L)	FINAL ( ug/L)
17 Methylene Chloride	84	10.659	10.643 (0.782)			48793	3.21313	3.213 (a) ✓
19 trans-1,2-Dichloroethene	96.00		Compound Not Detected.					
20 Methyl-T-Butylether	73.00		Compound Not Detected.					
23 1,1-Dichloroethane	63.00		Compound Not Detected.					
25 cis-1,2-Dichloroethene	96.00		Compound Not Detected.					
26 2-Butanone	43.00		Compound Not Detected.					
27 Chloroform	83.00		Compound Not Detected.					
28 1,1,1-Trichloroethane	97.00		Compound Not Detected.					
70 Cyclohexane	56.00		Compound Not Detected.					
29 Carbon Tetrachloride	117.00		Compound Not Detected.					
30 Benzene	78.00		Compound Not Detected.					
31 1,2-Dichloroethane	62.00		Compound Not Detected.					
32 Trichloroethene	130.00		Compound Not Detected.					
71 Methylcyclohexane	83.00		Compound Not Detected.					
33 1,2-Dichloropropane	63.00		Compound Not Detected.					
34 Bromodichloromethane	83.00		Compound Not Detected.					
36 cis-1,3-Dichloropropene	75.00		Compound Not Detected.					
37 4-Methyl-2-Pentanone	43.00		Compound Not Detected.					
38 Toluene	91.00		Compound Not Detected.					
39 trans-1,3-Dichloropropene	75.00		Compound Not Detected.					
40 1,1,2-Trichloroethane	97.00		Compound Not Detected.					
41 Tetrachloroethene	164	18.570	18.543 (0.927)			47423	3.34769	3.348 (a) ✓
43 2-Hexanone	43.00		Compound Not Detected.					
42 Dibromochloromethane	129.00		Compound Not Detected.					
72 1,2-Dibromoethane	107.00		Compound Not Detected.					
44 Chlorobenzene	112.00		Compound Not Detected.					
45 Ethylbenzene	106.00		Compound Not Detected.					
46 m & p-Xylene	106.00		Compound Not Detected.					
47 o-Xylene	106.00		Compound Not Detected.					
M 48 Xylenes (Total)	106.00		Compound Not Detected.					
49 Styrene	104.00		Compound Not Detected.					
50 Bromoform	173.00		Compound Not Detected.					
73 Isopropylbenzene	105.00		Compound Not Detected.					
51 1,1,2,2-Tetrachloroethane	83.00		Compound Not Detected.					
52 1,3-Dichlorobenzene	146.00		Compound Not Detected.					
53 1,4-Dichlorobenzene	146.00		Compound Not Detected.					
54 1,2-Dichlorobenzene	146.00		Compound Not Detected.					
74 1,2-Dibromo-3-Chloropropane	75.00		Compound Not Detected.					
75 1,2,4-Trichlorobenzene	180.00		Compound Not Detected.					

#### QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ) .

3/24/03

Lionville Laboratory Inc.

Data file : /chem/msvoa3/5972h.i/h032403o.b/h032416.d  
Lab Smp Id: 0303L980-003 Client Smp ID: SH102-0317-D00704  
Inj Date : 24-MAR-03 16:49:00  
Operator : MFS Inst ID: 5972H.i  
Smp Info : 0303L980-003 H032401, [AL=0624CO], [DC=00]  
Misc Info : DIL,1,WSRC 5ML  
Comment :  
Method : /chem/msvoa3/5972h.i/h032403o.b/olm4.1w.m  
Meth Date : 26-Mar-03 10:32:50 rubinob Quant Type: ISTD  
Cal Date : 24-MAR-03 08:50:00 Cal File: h032403.d  
Als bottle: 3  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 0624CO.sub  
Target Version: 3.30  
Processing Host: hp4920a

Concentration Formula: Uf/Vo

Name	Value	Description
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 3 Chlorobenzene-d5	20.021	4892003	50.000

RT	AREA	CONCENTRATIONS		QUAL	QUANT		
		ON-COL( ug/L)	FINAL( ug/L)		LIBRARY	LIB ENTRY	CPND #
=====							
Siloxane			CAS #:				
18.313	724693	7.40691381	7.407	0	0	0	3
Siloxane			CAS #:				
22.263	2074218	21.2000901	21.200	0	0	0	3

Mar 26/03

Date : 24-MAR-03 16:49:00

Client ID: SH102-0317-D00704

Instrument: 5972H.i

Sample Info: 0303L980-003 H032401,[AL=0624C01],[DC=00]

Purge Volume: 5.0

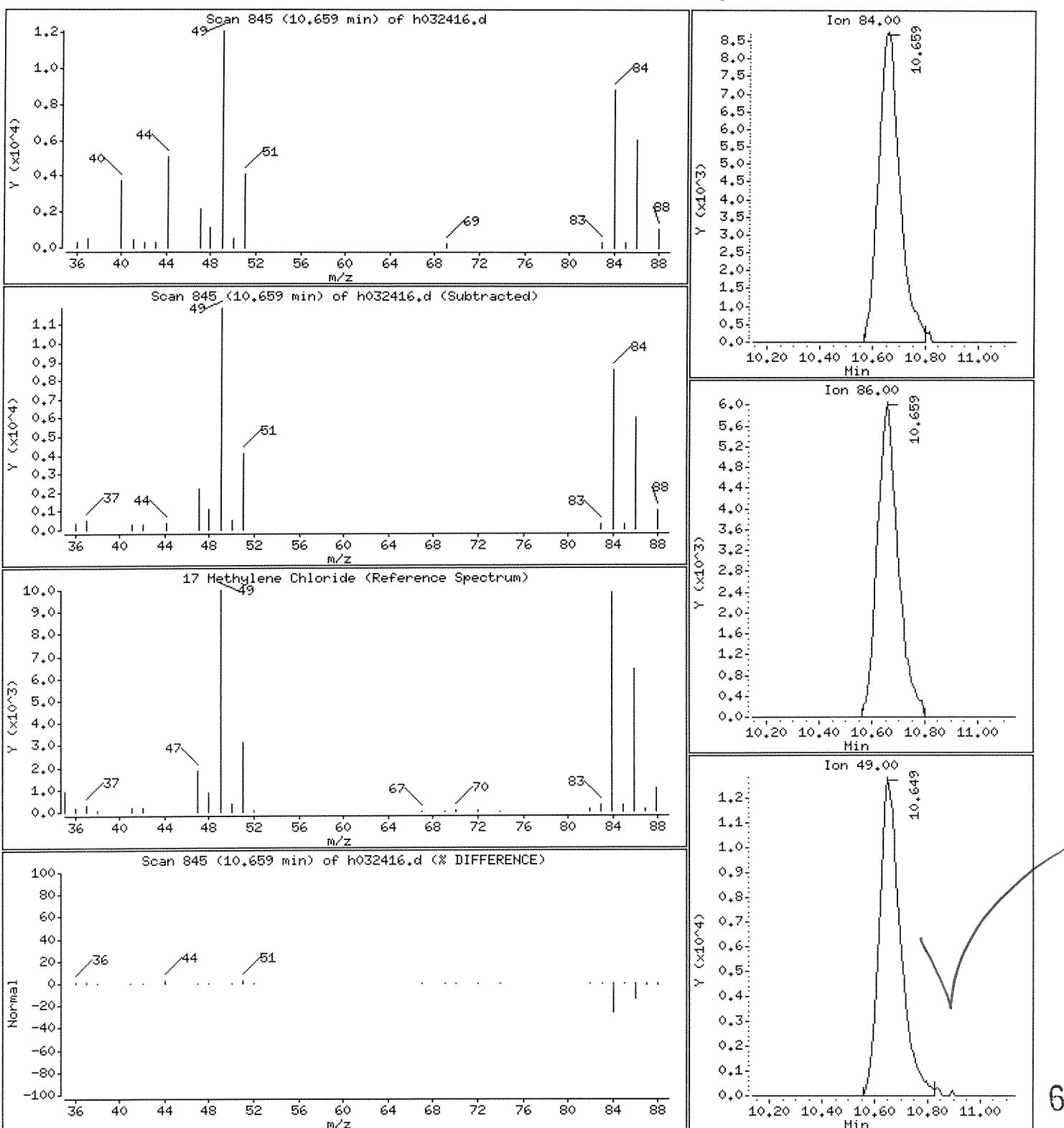
Operator: MFS

Column phase: RTX-624

Column diameter: 0.53

## 17 Methylene Chloride

Concentration: 3.213 ug/L



Date : 24-MAR-03 16:49:00

Client ID: SH102-0317-D00704

Instrument: 5972H,i

Sample Info: 0303L980-003 H032401,[IAL=0624C01],[DC=00]

Purge Volume: 5.0

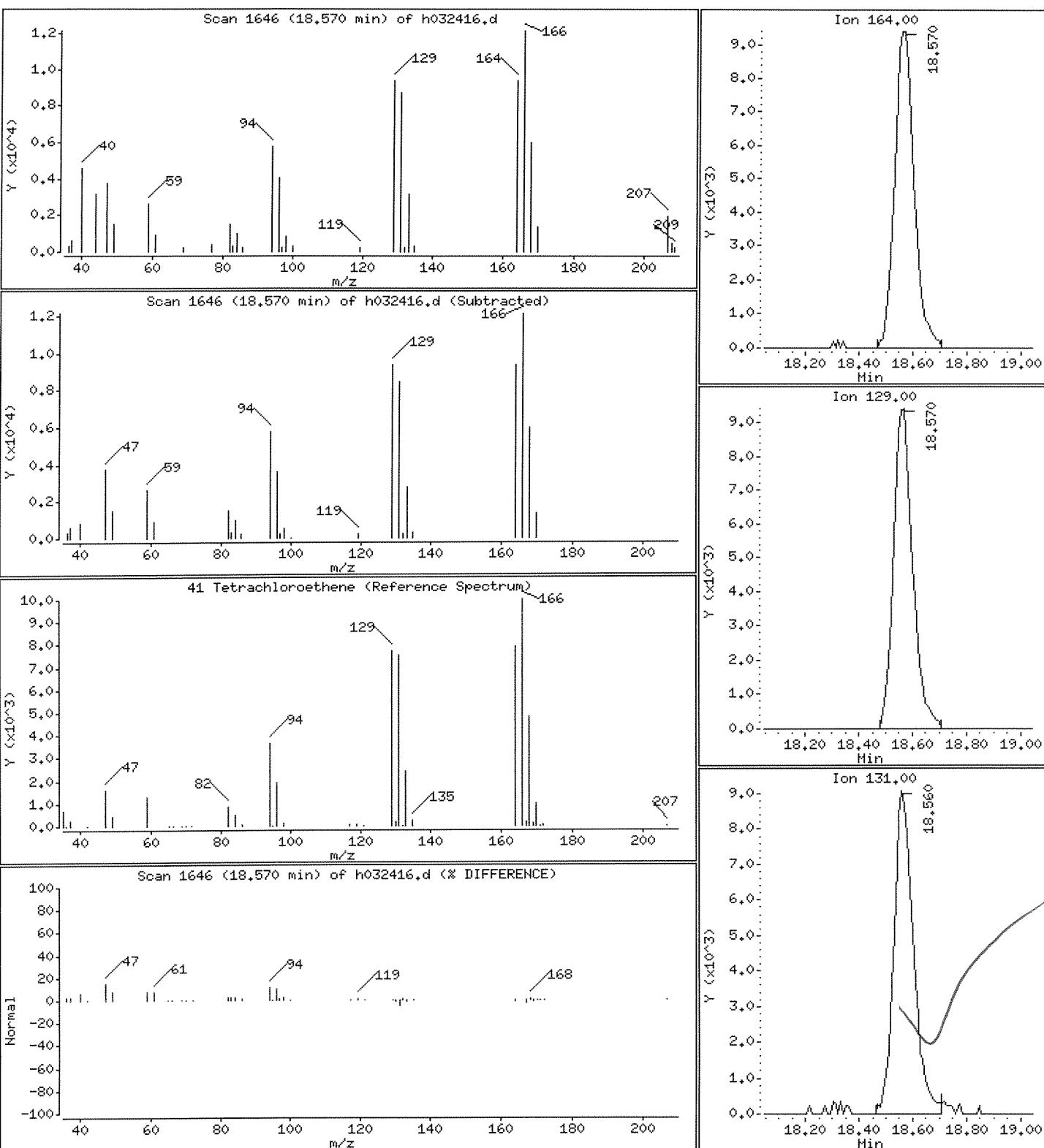
Operator: MFS

Column phase: RTX-624

Column diameter: 0.53

## 41 Tetrachloroethene

Concentration: 3.348 ug/L



62

Date : 24-MAR-03 16:49:00

Client ID: SH102-0317-D00704

Instrument: 5972H.i

Sample Info: 0303L980-003 H032401,[AL=0624C0],[DC=00]

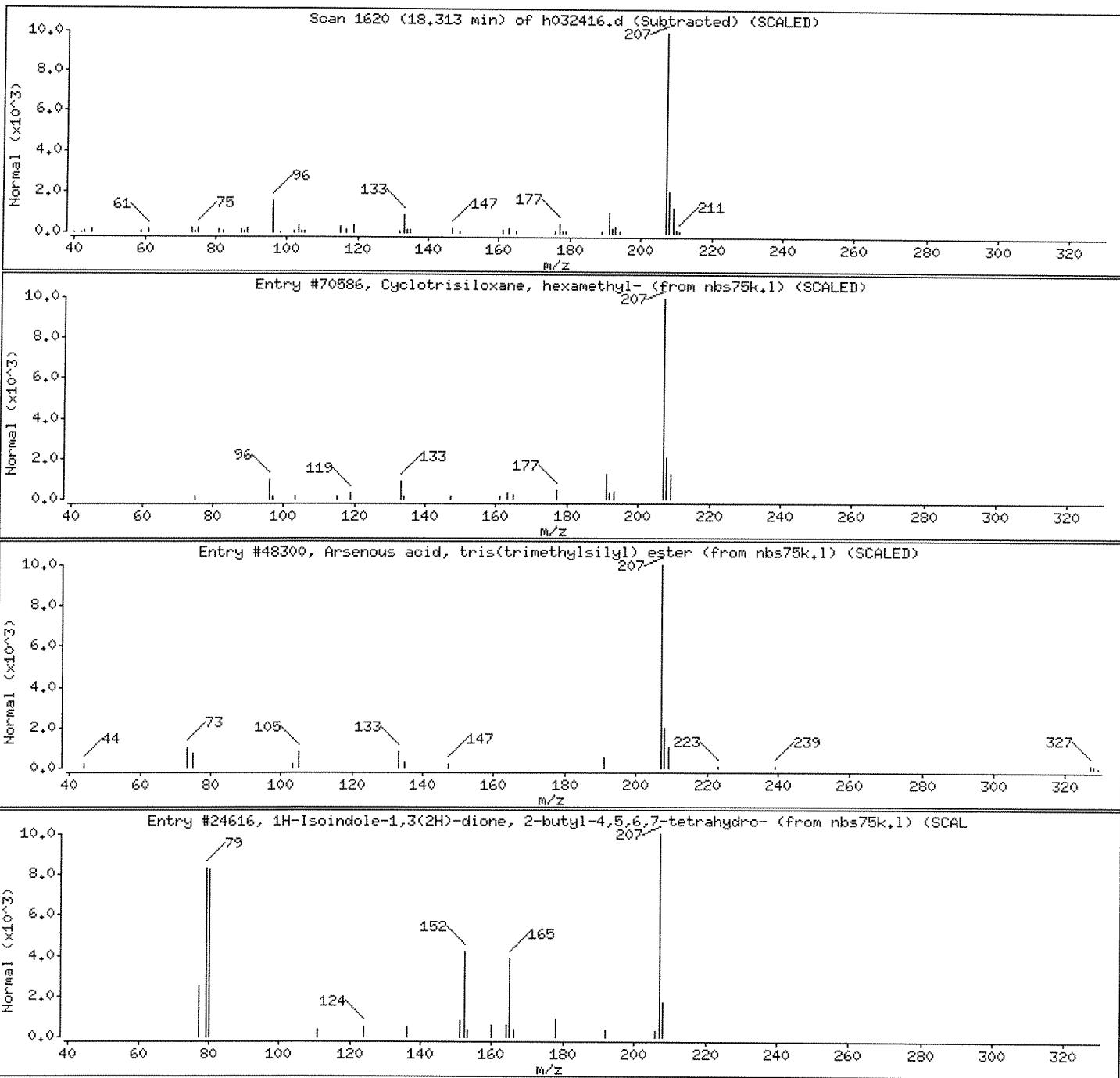
Purge Volume: 5.0

Operator: HFS

Column phase: RTX-624

Column diameter: 0.53

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Siloxane						
Cyclotrisiloxane, hexamethyl-	541-05-9	nbs75k+1	70586	91	C6H18O3Si3	222
Arsenous acid, tris(trimethylsilyl) este	55429-29-3	nbs75k+1	48300	50	C9H27AsO3Si3	342
1H-Isoindole-1,3(2H)-dione, 2-butyl-4,5,	54934-85-9	nbs75k+1	24616	40	C12H17NO2	207



Data File: /chem/msvoa3/5972h.i/h032403o.b/h032416.d

Page 8

Date : 24-MAR-03 16:49:00

Client ID: SH102-0317-D00704

Instrument: 5972H.i

Sample Info: 0303L980-003 H032401,[AL=0624C0],[DC=00]

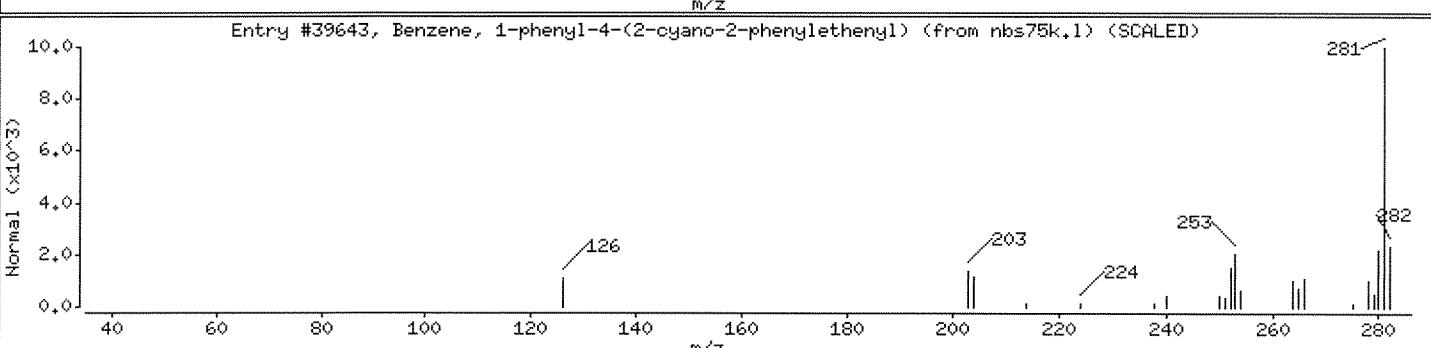
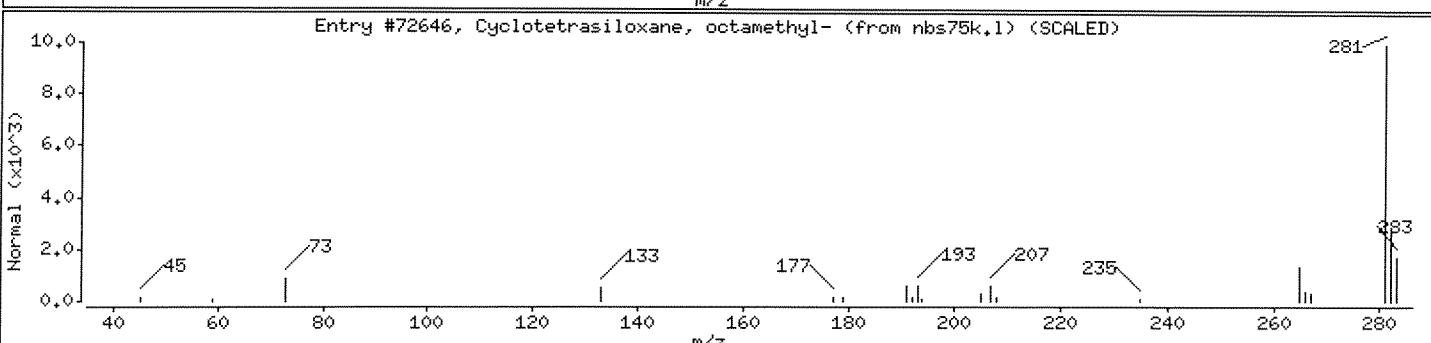
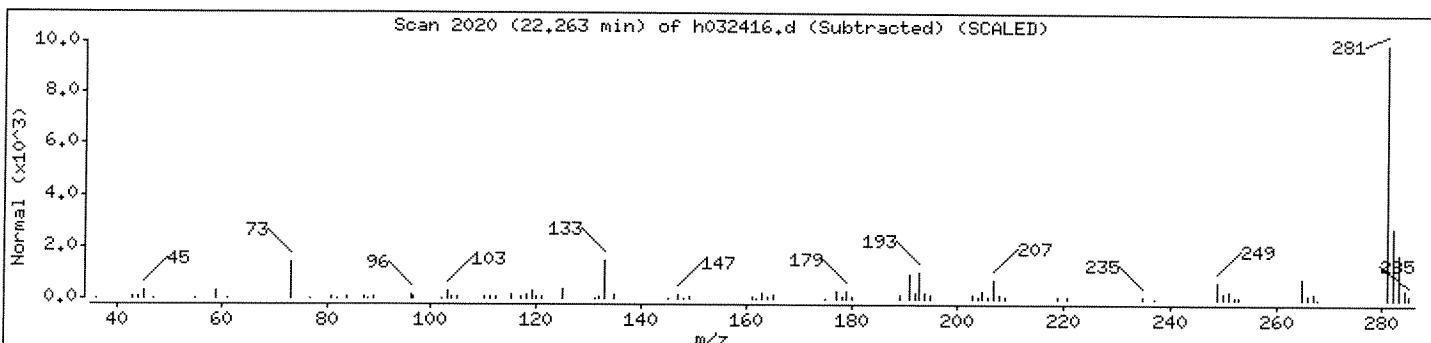
Purge Volume: 5.0

Operator: MFS

Column phase: RTX-624

Column diameter: 0.53

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Siloxane						
Cyclotetrasiloxane, octamethyl-	556-67-2	nbs75k+1	72646	78	C8H24O4Si4	296
Benzene, 1-phenyl-4-(2-cyano-2-phenylethyl)	27869-56-3	nbs75k+1	39643	50	C21H15N	281



## VOLATILE ORGANICS ANALYSIS DATA SHEET

SH102-0317-D00707

Lab Name: Lionville Labs, Inc. Contract: 01667601001Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 0303L980-004Sample wt/vol: 5.00 (g/mL) MLLab File ID: h032417Level: (low/med) LOWDate Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) ug/L

Q

75-71-8-----	Dichlorodifluoromethane	10	U
74-87-3-----	Chloromethane	10	U
75-01-4-----	Vinyl Chloride	10	U
74-83-9-----	Bromomethane	10	U
75-00-3-----	Chloroethane	10	U
75-69-4-----	Trichlorofluoromethane	10	U
75-35-4-----	1,1-Dichloroethene	10	U
76-13-1-----	1,1,2-Trichlorotrifluoroethane	10	U
67-64-1-----	Acetone	10	U
75-15-0-----	Carbon Disulfide	10	U
79-20-9-----	Methyl Acetate	10	U
75-09-2-----	Methylene Chloride	4	JB
156-60-5-----	Trans-1,2-dichloroethene	10	U
1634-04-4-----	tert-Butyl Methyl Ether	10	U
75-34-3-----	1,1-Dichloroethane	10	U
156-59-2-----	Cis-1,2-dichloroethene	10	U
78-93-3-----	2-Butanone	10	U
67-66-3-----	Chloroform	1	J
71-55-6-----	1,1,1-Trichloroethane	10	U
110-82-7-----	Cyclohexane	10	U
56-23-5-----	Carbon Tetrachloride	10	U
71-43-2-----	Benzene	10	U
107-06-2-----	1,2-Dichloroethane	10	U
79-01-6-----	Trichloroethene	10	U
108-87-2-----	Methylcyclohexane	10	U
78-87-5-----	1,2-Dichloropropane	10	U
75-27-4-----	Bromodichloromethane	10	U
10061-01-5-----	cis-1,3-Dichloropropene	10	U
108-10-1-----	4-Methyl-2-pentanone	10	U
108-88-3-----	Toluene	10	U
10061-02-6-----	Trans-1,3-Dichloropropene	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
127-18-4-----	Tetrachloroethene	10	U
591-78-6-----	2-Hexanone	10	U

## VOLATILE ORGANICS ANALYSIS DATA SHEET

SH102-0317-D00707

Lab Name: Lionville Labs, Inc. Contract: 01667601001Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 0303L980-004Sample wt/vol: 5.00 (g/mL) MLLab File ID: h032417Level: (low/med) LOWDate Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) ug/L

Q

124-48-1-----Dibromochloromethane	10	U
106-93-4-----1,2-Dibromoethane	10	U
108-90-7-----Chlorobenzene	10	U
100-41-4-----Ethylbenzene	10	U
1330-20-7-----Xylene (total)	10	U
100-42-5-----Styrene	10	U
75-25-2-----Bromoform	10	U
98-82-8-----Isopropylbenzene	10	U
79-34-5-----1,1,2,2-Tetrachloroethane	10	U
541-73-1-----1,3-Dichlorobenzene	10	U
106-46-7-----1,4-Dichlorobenzene	10	U
95-50-1-----1,2-Dichlorobenzene	10	U
96-12-8-----1,2-Dibromo-3-chloropropane	10	U
120-82-1-----1,2,4-Trichlorobenzene	10	U

FORM 1 V-2

3/90

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SH102-0317-D00707

Lab Name: Lionville Labs, Inc. Contract: 01667601001Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 0303L980-004Sample wt/vol: 5.00 (g/mL) MLLab File ID: h032417Level: (low/med) LOWDate Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

Number TICs found: 2(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	SILOXANE	18.314	6	J
2.	SILOXANE	22.264	10	J

Data File: /chem/msv0a3/5972h.i/h032403o.b/h032417.d

Date : 24-MAR-03 17:24:00

Client ID: SH102-0317-D00707

Sample Info: 0303L980-004 H032401,[AL=0624C01],[DC=00]

Purge Volume: 5.0

Column phase: RTX-624

Page 4

63

Instrument: 5972H.i

Operator: MFS

Column diameter: 0.53

/chem/msv0a3/5972h.i/h032403o.b/h032417.d

-Bromochloromethane (13.613)

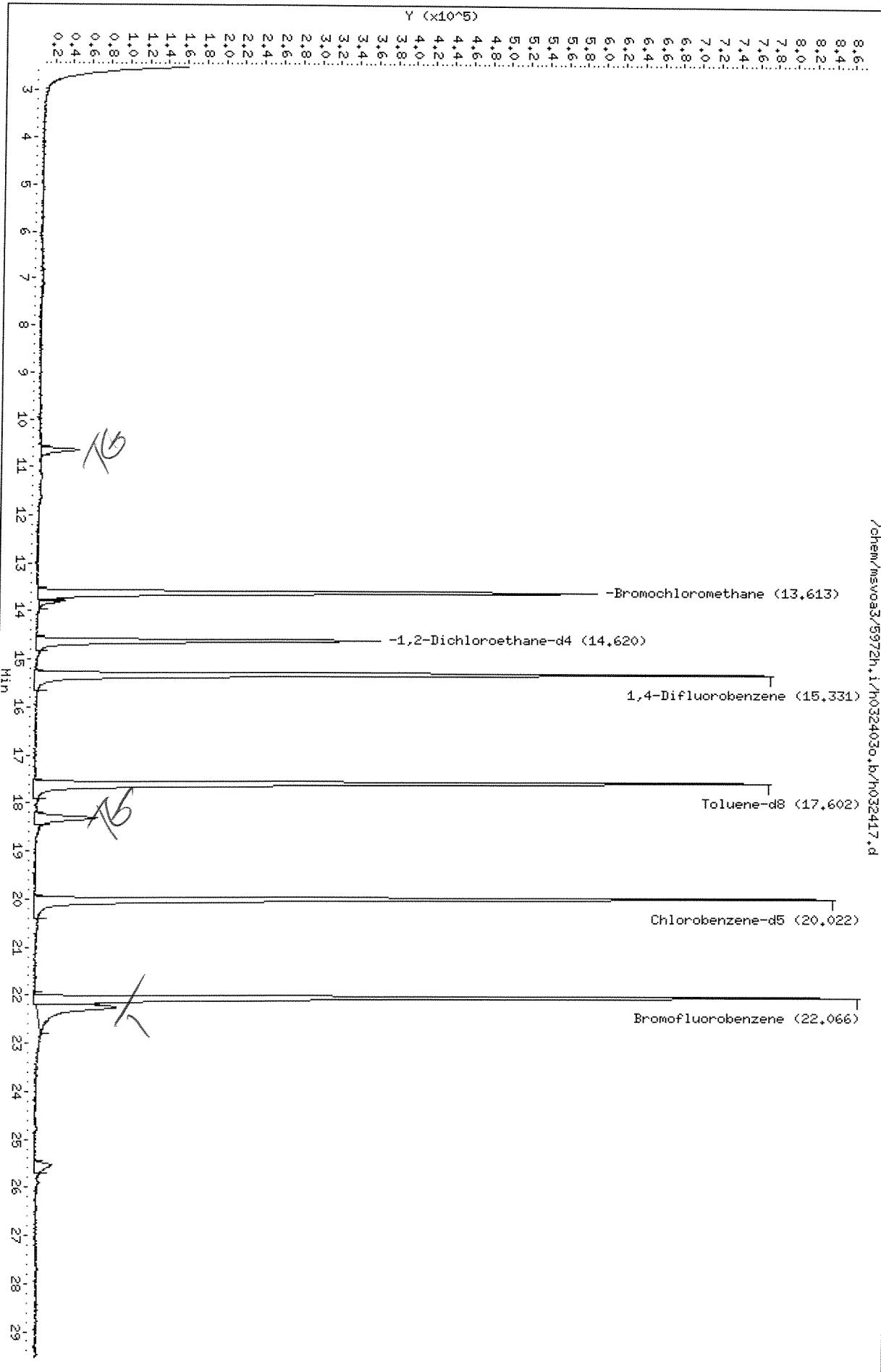
-1,2-Dichloroethane-d4 (14.620)

1,4-Difluorobenzene (15.331)

Toluene-d8 (17.602)

Chlorobenzene-d5 (20.022)

Bromofluorobenzene (22.066)



Lionville Laboratory Inc.

Data file : /chem/msvoa3/5972h.i/h032403o.b/h032417.d  
Lab Smp Id: 0303L980-004 Client Smp ID: SH102-0317-D00707  
Inj Date : 24-MAR-03 17:24:00  
Operator : MFS Inst ID: 5972H.i  
Smp Info : 0303L980-004 H032401, [AL=O624CO], [DC=00]  
Misc Info : DIL,1,WSRC 5ML  
Comment :  
Method : /chem/msvoa3/5972h.i/h032403o.b/olm4.1w.m ✓  
Meth Date : 26-Mar-03 10:32:50 rubinob Quant Type: ISTD ✓  
Cal Date : 24-MAR-03 08:50:00 Cal File: h032403.d ✓  
Als bottle: 4 ✓  
Dil Factor: 1.00000 ✓  
Integrator: HP RTE Compound Sublist: O624CO.sub  
Target Version: 3.30 ✓  
Processing Host: hp4920a ✓

Concentration Formula: Uf/Vo

Name	Value	Description
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	( ug/L)
* 1 Bromochloromethane	128	13.623	13.605	(1.000)	375780	50.0000	
* 2 1,4-Difluorobenzene	114	15.331	15.314	(1.000)	1516164	50.0000	
* 3 Chlorobenzene-d5	117	20.022	20.015	(1.000)	1227469	50.0000	
\$ 4 1,2-Dichloroethane-d4	65	14.620	14.603	(1.073)	630545	46.8108	46.811
\$ 5 Toluene-d8	98	17.602	17.585	(0.879)	1277988	51.0764	51.076
\$ 6 Bromofluorobenzene	95	22.066	22.059	(1.102)	942696	44.6485	44.648
68 Dichlorodifluoromethane	85.00	Compound Not Detected.					
7 Chloromethane	50.00	Compound Not Detected.					
8 Vinyl Chloride	62.00	Compound Not Detected.					
9 Bromomethane	94.00	Compound Not Detected.					
10 Chloroethane	64.00	Compound Not Detected.					
11 Trichlorofluoromethane	101.00	Compound Not Detected.					
14 1,1-Dichloroethene	96.00	Compound Not Detected.					
65 Freon-113	151.00	Compound Not Detected.					
16 Acetone	43.00	Compound Not Detected.					
15 Carbon Disulfide	76.00	Compound Not Detected.					
69 Methyl Acetate	43.00	Compound Not Detected.					

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN ( ug/L)	FINAL ( ug/L)
17 Methylene Chloride	84	10.650	10.643 (0.782)			52395	4.14119	4.141(a) ✓
19 trans-1,2-Dichloroethene	96.00							
20 Methyl-T-Butylether	73.00							
23 1,1-Dichloroethane	63.00							
25 cis-1,2-Dichloroethene	96.00							
26 2-Butanone	43.00							
27 Chloroform	83	13.800	13.783 (1.013)			30326	1.23552	1.236(a) ✓
28 1,1,1-Trichloroethane	97.00							
70 Cyclohexane	56.00							
29 Carbon Tetrachloride	117.00							
30 Benzene	78.00							
31 1,2-Dichloroethane	62.00							
32 Trichloroethene	130.00							
71 Methylcyclohexane	83.00							
33 1,2-Dichloroproppane	63.00							
34 Bromodichloromethane	83.00							
36 cis-1,3-Dichloropropene	75.00							
37 4-Methyl-2-Pentanone	43.00							
38 Toluene	91.00							
39 trans-1,3-Dichloropropene	75.00							
40 1,1,2-Trichloroethane	97.00							
41 Tetrachloroethene	164.00							
43 2-Hexanone	43.00							
42 Dibromochloromethane	129.00							
72 1,2-Dibromoethane	107.00							
44 Chlorobenzene	112.00							
45 Ethylbenzene	106.00							
46 m & p-Xylene	106.00							
47 o-Xylene	106.00							
M 48 Xylenes (Total)	106.00							
49 Styrene	104.00							
50 Bromoform	173.00							
73 Isopropylbenzene	105.00							
51 1,1,2,2-Tetrachloroethane	83.00							
52 1,3-Dichlorobenzene	146.00							
53 1,4-Dichlorobenzene	146.00							
54 1,2-Dichlorobenzene	146.00							
74 1,2-Dibromo-3-Chloropropane	75.00							
75 1,2,4-Trichlorobenzene	180.00							

#### QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ) .

R. B. 2/20/03

Lionville Laboratory Inc.

Data file : /chem/msvoa3/5972h.i/h032403o.b/h032417.d  
Lab Smp Id: 0303L980-004 Client Smp ID: SH102-0317-D00707  
Inj Date : 24-MAR-03 17:24:00  
Operator : MFS Inst ID: 5972H.i  
Smp Info : 0303L980-004 H032401, [AL=O624CO], [DC=00]  
Misc Info : DIL,1,WSRC 5ML  
Comment :  
Method : /chem/msvoa3/5972h.i/h032403o.b/olm4.1w.m  
Meth Date : 26-Mar-03 10:32:50 rubinob Quant Type: ISTD  
Cal Date : 24-MAR-03 08:50:00 Cal File: h032403.d  
Als bottle: 4  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: O624CO.sub  
Target Version: 3.30  
Processing Host: hp4920a

Concentration Formula: Uf/Vo

Name	Value	Description
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 3 Chlorobenzene-d5	20.022	4056237	50.000

RT	AREA	CONCENTRATIONS		QUAL	QUANT		
		ON-COL( ug/L)	FINAL( ug/L)		LIBRARY	LIB ENTRY	CPND #
====	====	=====	=====	====	=====	=====	=====
Siloxane			CAS #:				
18.314	491482	6.05835243	6.058	0		0	3
Siloxane			CAS #:				
22.264	885550	10.9159015	10.916	0		0	3

3/26/03

Date : 24-MAR-03 17:24:00

Client ID: SH102-0317-D00707

Instrument: 5972H.i

Sample Info: 0303L980-004 H032401,[AL=0624C01],[DC=00]

Purge Volume: 5.0

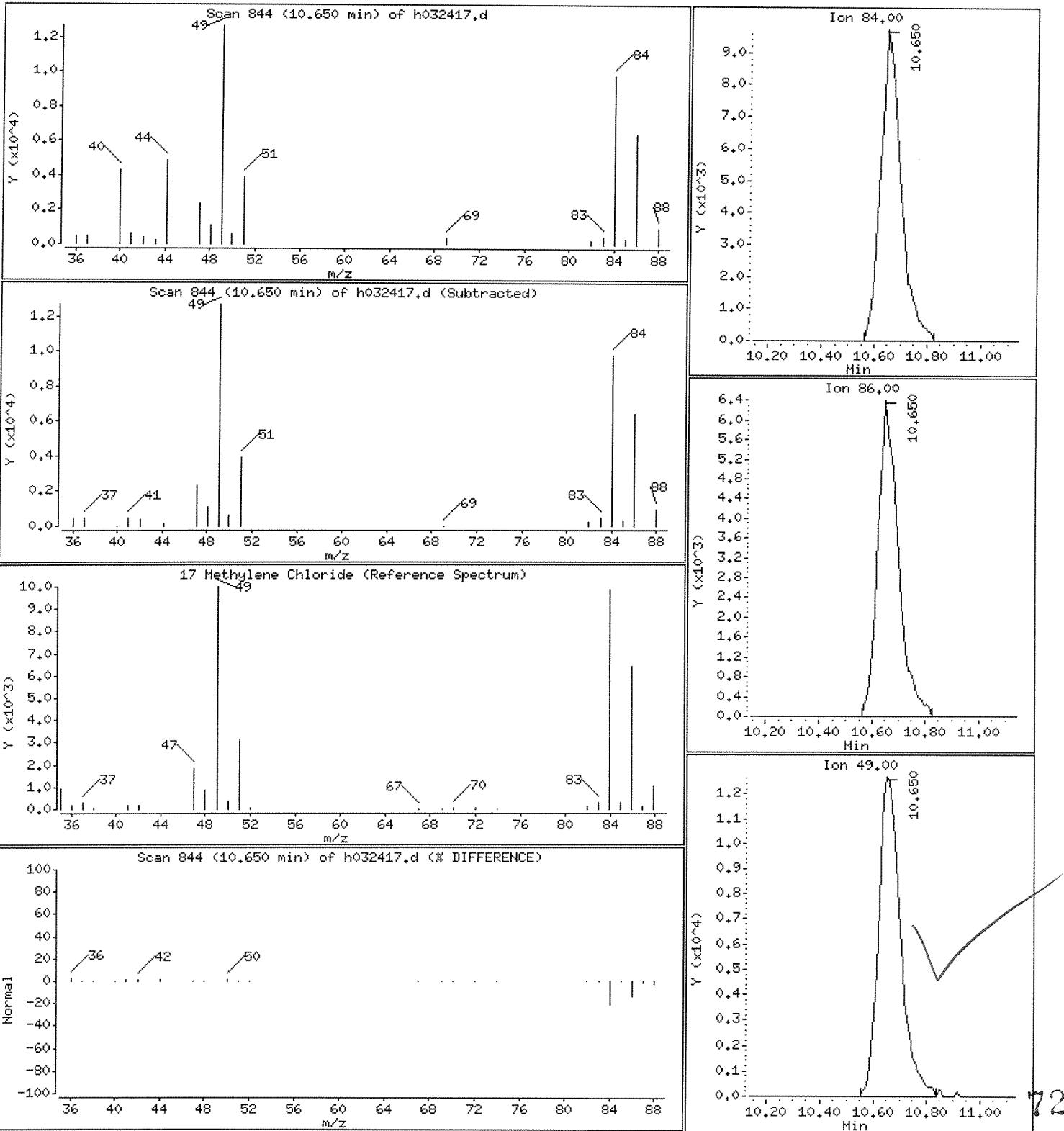
Operator: MFS

Column phase: RTX-624

Column diameter: 0.53

## 17 Methylene Chloride

Concentration: 4.141 ug/L



Date : 24-MAR-03 17:24:00

Client ID: SH102-0317-D00707

Instrument: 5972H.i

Sample Info: 0303L980-004 H032401,[AL=0624C01],[DC=00]

Purge Volume: 5.0

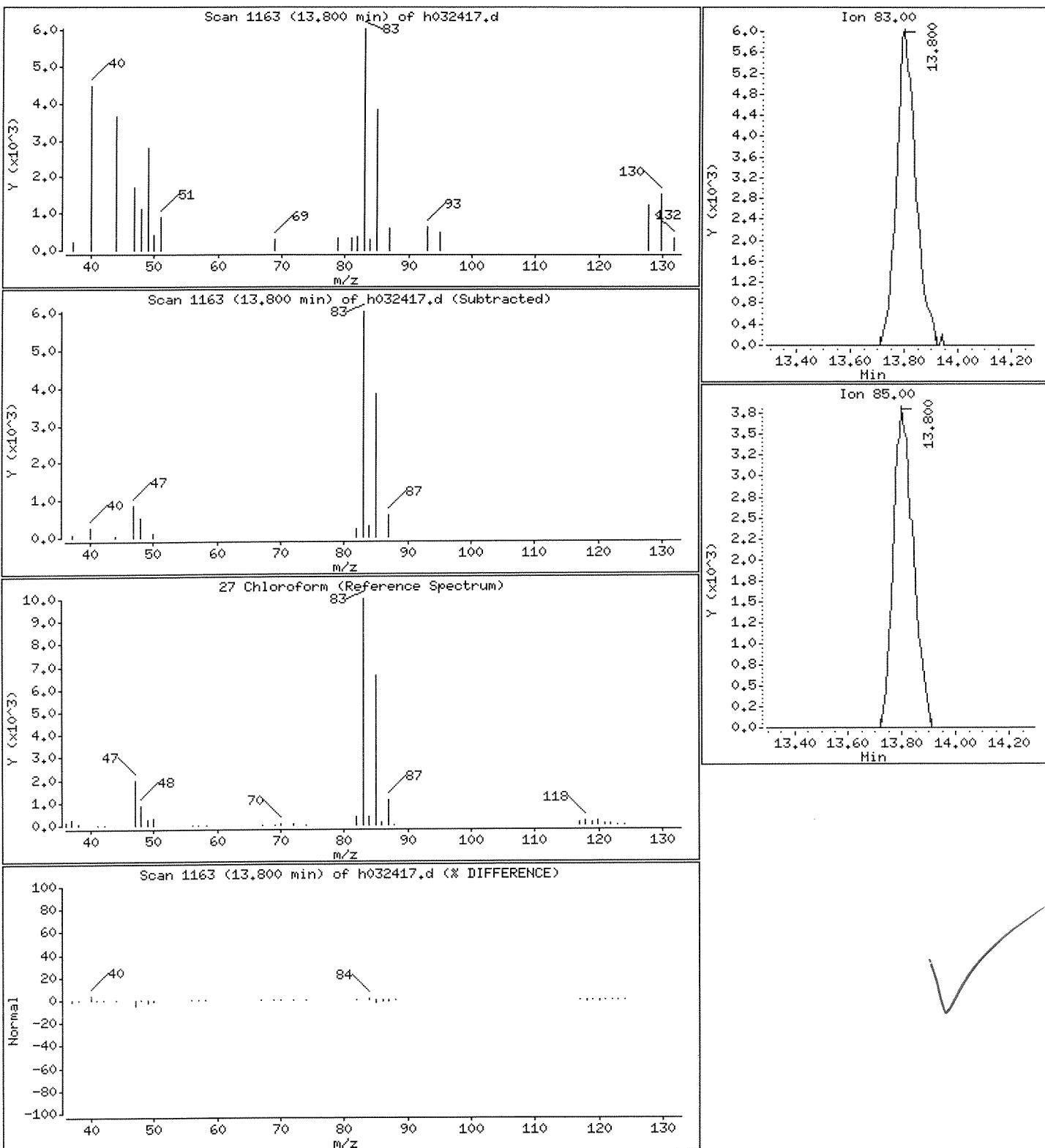
Operator: MFS

Column phase: RTX-624

Column diameter: 0.53

27 Chloroform

Concentration: 1.236 ug/L



Date : 24-MAR-03 17:24:00

Client ID: SH102-0317-D00707

Instrument: 5972H.i

Sample Info: 0303L980-004 H032401,[AL=0624C0],[DC=00]

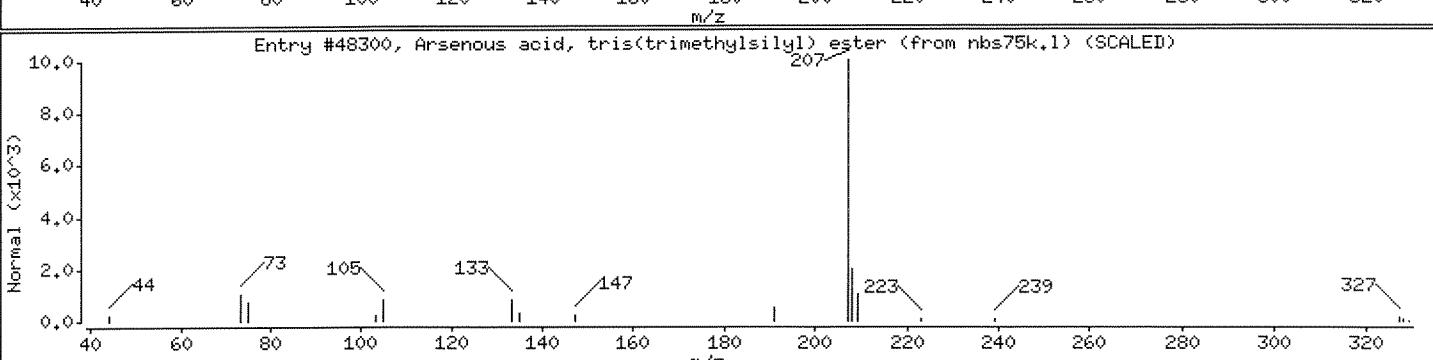
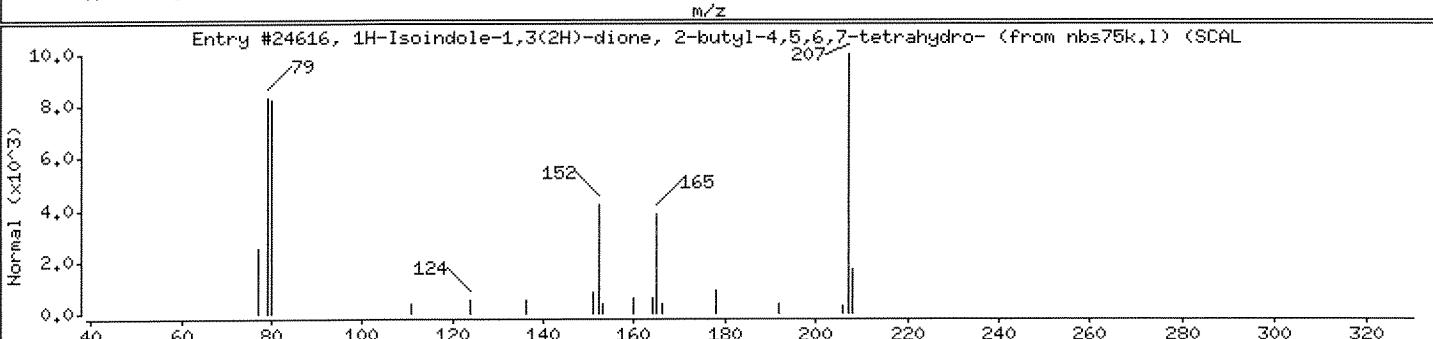
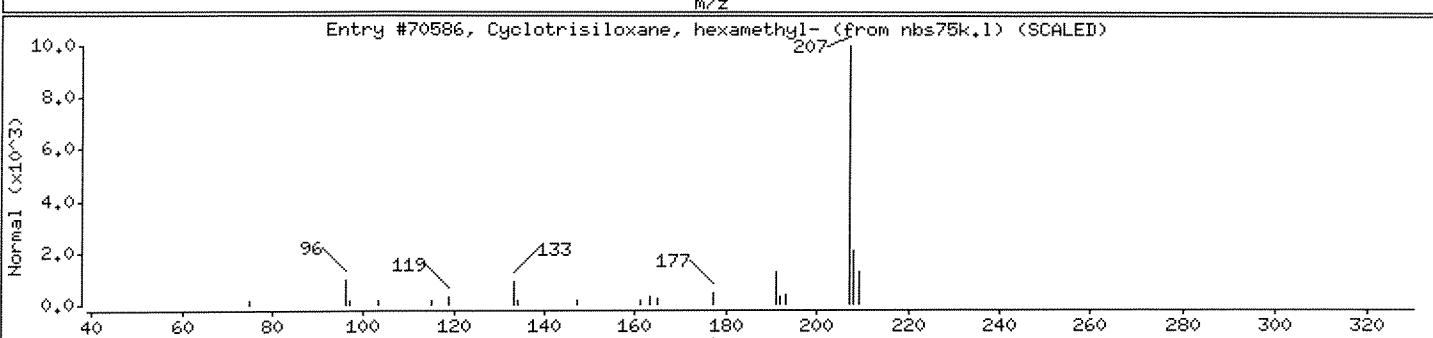
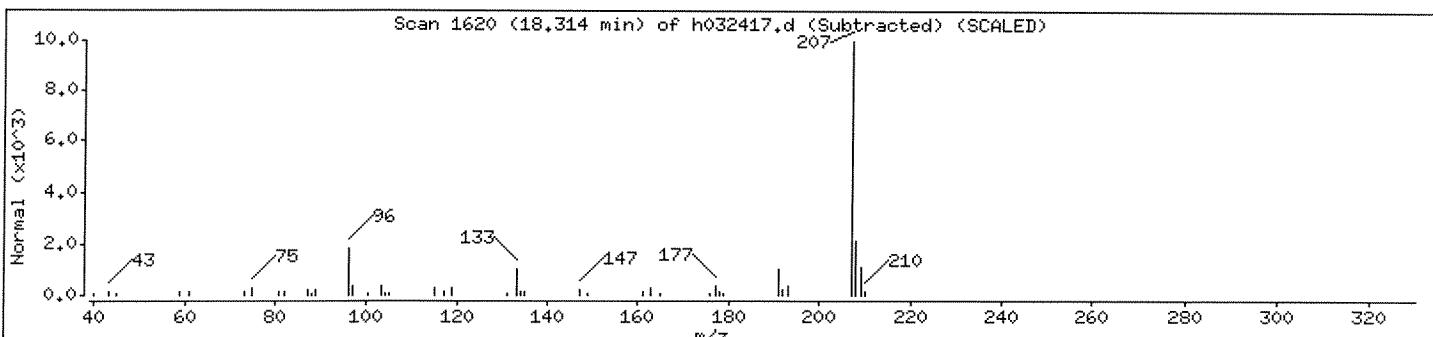
Purge Volume: 5.0

Operator: MFS

Column phase: RTX-624

Column diameter: 0.53

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
<b>Siloxane</b>						
Cyclotrisiloxane, hexamethyl-	541-05-9	nbs75k+1	70586	90	C <sub>6</sub> H <sub>18</sub> O <sub>3</sub> Si <sub>3</sub>	222
1H-Isoindole-1,3(2H)-dione, 2-butyl-4,5,	54934-85-9	nbs75k+1	24616	50	C <sub>12</sub> H <sub>17</sub> N <sub>0</sub> 2	207
Arsenous acid, tris(trimethylsilyl) este	55429-29-3	nbs75k+1	48300	50	C <sub>9</sub> H <sub>27</sub> AsO <sub>3</sub> Si <sub>3</sub>	342



Data File: /chem/msvoa3/5972h.i/h032403o,b/h032417.d

Page 8

Date : 24-MAR-03 17:24:00

Client ID: SH102-0317-D00707

Instrument: 5972H.i

Sample Info: 0303L980-004 H032401,[AL=0624C01],[IDC=00]

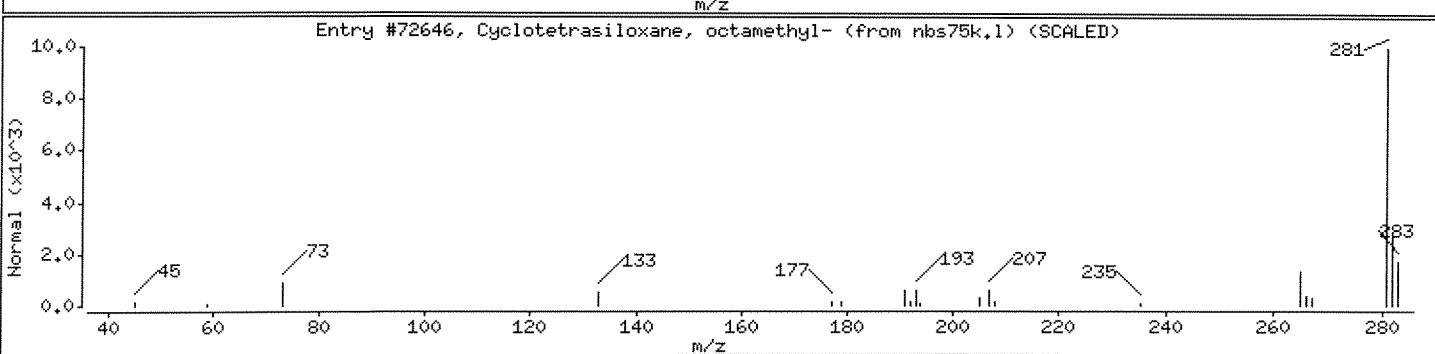
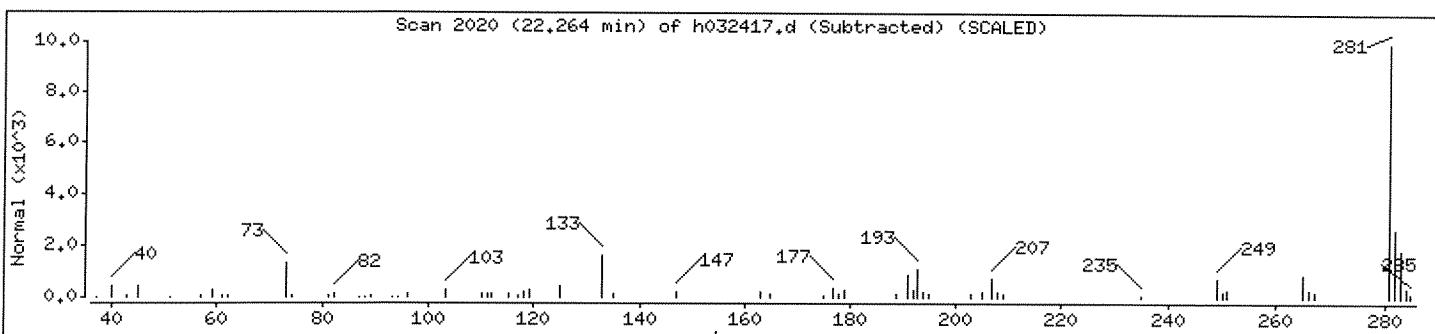
Purge Volume: 5.0

Operator: MFS

Column phase: RTX-624

Column diameter: 0.53

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Siloxane						
Cyclotetrasiloxane, octamethyl-	556-67-2	nbs75k,1	72646	47	C8H24O4Si4	296



## VOLATILE ORGANICS ANALYSIS DATA SHEET

SH102-0317-D00703

Lab Name: Lionville Labs, Inc. Contract: 01667601001Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 0303L980-005Sample wt/vol: 5.00 (g/mL) MLLab File ID: h032418Level: (low/med) LOWDate Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
75-71-8-----	Dichlorodifluoromethane	10 U	
74-87-3-----	Chloromethane	10 U	
75-01-4-----	Vinyl Chloride	10 U	
74-83-9-----	Bromomethane	10 U	
75-00-3-----	Chloroethane	10 U	
75-69-4-----	Trichlorofluoromethane	10 U	
75-35-4-----	1,1-Dichloroethene	10 U	
76-13-1-----	1,1,2-Trichlorotrifluoroethane	10 U	
67-64-1-----	Acetone	10 U	
75-15-0-----	Carbon Disulfide	10 U	
79-20-9-----	Methyl Acetate	10 U	
75-09-2-----	Methylene Chloride	5 JB	
156-60-5-----	Trans-1,2-dichloroethene	10 U	
1634-04-4-----	tert-Butyl Methyl Ether	4 J	
75-34-3-----	1,1-Dichloroethane	10 U	
156-59-2-----	Cis-1,2-dichloroethene	10 U	
78-93-3-----	2-Butanone	10 U	
67-66-3-----	Chloroform	10 U	
71-55-6-----	1,1,1-Trichloroethane	1 J	
110-82-7-----	Cyclohexane	10 U	
56-23-5-----	Carbon Tetrachloride	10 U	
71-43-2-----	Benzene	10 U	
107-06-2-----	1,2-Dichloroethane	10 U	
79-01-6-----	Trichloroethene	10 U	
108-87-2-----	Methylcyclohexane	10 U	
78-87-5-----	1,2-Dichloropropane	10 U	
75-27-4-----	Bromodichloromethane	10 U	
10061-01-5-----	cis-1,3-Dichloropropene	10 U	
108-10-1-----	4-Methyl-2-pentanone	10 U	
108-88-3-----	Toluene	10 U	
10061-02-6-----	Trans-1,3-Dichloropropene	10 U	
79-00-5-----	1,1,2-Trichloroethane	10 U	
127-18-4-----	Tetrachloroethene	2 J	
591-78-6-----	2-Hexanone	10 U	

## VOLATILE ORGANICS ANALYSIS DATA SHEET

SH102-0317-D00703

Lab Name: Lionville Labs, Inc. Contract: 01667601001Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 0303L980-005Sample wt/vol: 5.00 (g/mL) MLLab File ID: h032418Level: (low/med) LOWDate Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) ug/L

Q

124-48-1-----Dibromochloromethane	10	U
106-93-4-----1,2-Dibromoethane	10	U
108-90-7-----Chlorobenzene	10	U
100-41-4-----Ethylbenzene	10	U
1330-20-7-----Xylene (total)	10	U
100-42-5-----Styrene	10	U
75-25-2-----Bromoform	10	U
98-82-8-----Isopropylbenzene	10	U
79-34-5-----1,1,2,2-Tetrachloroethane	10	U
541-73-1-----1,3-Dichlorobenzene	10	U
106-46-7-----1,4-Dichlorobenzene	10	U
95-50-1-----1,2-Dichlorobenzene	10	U
96-12-8-----1,2-Dibromo-3-chloropropane	10	U
120-82-1-----1,2,4-Trichlorobenzene	10	U

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SH102-0317-D00703

Lab Name: Lionville Labs, Inc. Contract: 01667601001Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 0303L980-005Sample wt/vol: 5.00 (g/mL) MLLab File ID: h032418Level: (low/med) LOWDate Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

Number TICs found: 2(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	SILOXANE	18.323	6	J
2.	SILOXANE	22.254	8	J

Data File: /chem/msv0a3/5972h.i/h032403o.b/h032418.d  
Date : 24-MAR-03 17:59:00

Client ID: SH102-0317-D00703

Sample Info: 0303L980-005 H032401,[AL=0624001, [DC=00]

Purge Volume: 5.0

Column Phase: RTX-624

Instrument: 5972H.i

Operator: MFS

Column diameter: 0.53

/chem/msv0a3/5972h.i/h032403o.b/h032418.d

-Bromochloromethane (13.612)

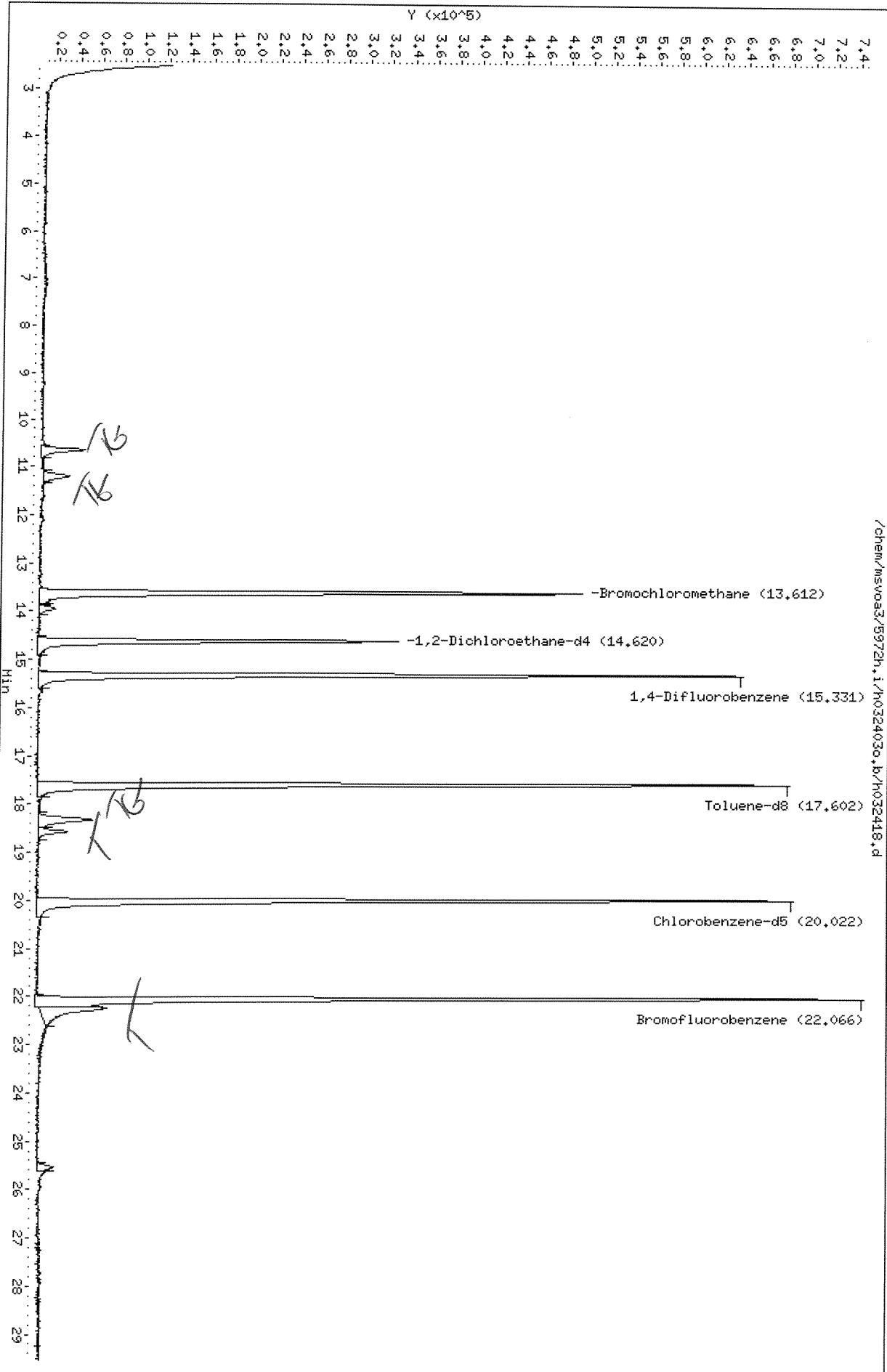
-1,2-Dichloroethane-d4 (14.620)

1,4-Difluorobenzene (15.331)

Toluene-d8 (17.602)

Chlorobenzene-d5 (20.022)

Bromofluorobenzene (22.066)



Lionville Laboratory Inc.

Data file : /chem/msvoa3/5972h.i/h032403o.b/h032418.d  
Lab Smp Id: 0303L980-005 Client Smp ID: SH102-0317-D00703  
Inj Date : 24-MAR-03 17:59:00  
Operator : MFS Inst ID: 5972H.i  
Smp Info : 0303L980-005 H032401, [AL=O624CO], [DC=00]  
Misc Info : DIL,1,WSRC 5ML  
Comment :  
Method : /chem/msvoa3/5972h.i/h032403o.b/olm4.1w.m ✓  
Meth Date : 26-Mar-03 10:32:50 rubinob Quant Type: ISTD ✓  
Cal Date : 24-MAR-03 08:50:00 Cal File: h032403.d ✓  
Als bottle: 5  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: O624CO.sub ✓  
Target Version: 3.30  
Processing Host: hp4920a

Concentration Formula: Uf/Vo

Name	Value	Description
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	( ug/L)
* 1 Bromochloromethane	====	128	13.622	13.605 (1.000)	315726	50.0000	
* 2 1,4-Difluorobenzene	==	114	15.331	15.314 (1.000)	1240426	50.0000	
* 3 Chlorobenzene-d5	=====	117	20.022	20.015 (1.000)	1002963	50.0000	
\$ 4 1,2-Dichloroethane-d4	65	14.620	14.603 (1.073)	567892	50.1786	50.179	
\$ 5 Toluene-d8	98	17.602	17.585 (0.879)	1122939	54.9256	54.926	
\$ 6 Bromofluorobenzene	95	22.076	22.059 (1.103)	810293	46.9681	46.968	
68 Dichlorodifluoromethane	85.00		Compound Not Detected.				
7 Chloromethane	50.00		Compound Not Detected.				
8 Vinyl Chloride	62.00		Compound Not Detected.				
9 Bromomethane	94.00		Compound Not Detected.				
10 Chloroethane	64.00		Compound Not Detected.				
11 Trichlorofluoromethane	101.00		Compound Not Detected.				
14 1,1-Dichloroethene	96.00		Compound Not Detected.				
65 Freon-113	151.00		Compound Not Detected.				
16 Acetone	43.00		Compound Not Detected.				
15 Carbon Disulfide	76.00		Compound Not Detected.				
69 Methyl Acetate	43.00		Compound Not Detected.				

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN ( ug/L)	FINAL ( ug/L)
17 Methylene Chloride	====	84	10.660	10.643 (0.782)	=====	48989	4.60848	4.608 (a) ✓
19 trans-1,2-Dichloroethene	96.00			Compound Not Detected.				
20 Methyl-T-Butylether	73	11.203	11.186 (0.822)	=====	68508	4.05769	4.058 (a) ✓	
23 1,1-Dichloroethane	63.00			Compound Not Detected.				
25 cis-1,2-Dichloroethene	96.00			Compound Not Detected.				
26 2-Butanone	43.00			Compound Not Detected.				
27 Chloroform	83.00			Compound Not Detected.				
28 1,1,1-Trichloroethane	97	13.958	13.931 (0.910)	=====	24649	1.42046	1.420 (a) ✓	
70 Cyclohexane	56.00			Compound Not Detected.				
29 Carbon Tetrachloride	117.00			Compound Not Detected.				
30 Benzene	78.00			Compound Not Detected.				
31 1,2-Dichloroethane	62.00			Compound Not Detected.				
32 Trichloroethene	130.00			Compound Not Detected.				
71 Methylcyclohexane	83.00			Compound Not Detected.				
33 1,2-Dichloropropane	63.00			Compound Not Detected.				
34 Bromodichloromethane	83.00			Compound Not Detected.				
36 cis-1,3-Dichloropropene	75.00			Compound Not Detected.				
37 4-Methyl-2-Pentanone	43.00			Compound Not Detected.				
38 Toluene	91.00			Compound Not Detected.				
39 trans-1,3-Dichloropropene	75.00			Compound Not Detected.				
40 1,1,2-Trichloroethane	97.00			Compound Not Detected.				
41 Tetrachloroethene	164	18.560	18.543 (0.927)	=====	15010	1.57567	1.576 (a) ✓	
43 2-Hexanone	43.00			Compound Not Detected.				
42 Dibromochloromethane	129.00			Compound Not Detected.				
72 1,2-Dibromoethane	107.00			Compound Not Detected.				
44 Chlorobenzene	112.00			Compound Not Detected.				
45 Ethylbenzene	106.00			Compound Not Detected.				
46 m & p-Xylene	106.00			Compound Not Detected.				
47 o-Xylene	106.00			Compound Not Detected.				
M 48 Xylenes (Total)	106.00			Compound Not Detected.				
49 Styrene	104.00			Compound Not Detected.				
50 Bromoform	173.00			Compound Not Detected.				
73 Isopropylbenzene	105.00			Compound Not Detected.				
51 1,1,2,2-Tetrachloroethane	83.00			Compound Not Detected.				
52 1,3-Dichlorobenzene	146.00			Compound Not Detected.				
53 1,4-Dichlorobenzene	146.00			Compound Not Detected.				
54 1,2-Dichlorobenzene	146.00			Compound Not Detected.				
74 1,2-Dibromo-3-Chloropropane	75.00			Compound Not Detected.				
75 1,2,4-Trichlorobenzene	180.00			Compound Not Detected.				

#### QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

3/26/03

Lionville Laboratory Inc.

Data file : /chem/msvoa3/5972h.i/h032403o.b/h032418.d  
Lab Smp Id: 0303L980-005 Client Smp ID: SH102-0317-D00703  
Inj Date : 24-MAR-03 17:59:00  
Operator : MFS Inst ID: 5972H.i  
Smp Info : 0303L980-005 H032401, [AL=0624CO], [DC=00]  
Misc Info : DIL,1,WSRC 5ML  
Comment :  
Method : /chem/msvoa3/5972h.i/h032403o.b/olm4.1w.m  
Meth Date : 26-Mar-03 10:32:50 rubinob Quant Type: ISTD  
Cal Date : 24-MAR-03 08:50:00 Cal File: h032403.d  
Als bottle: 5  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 0624CO.sub  
Target Version: 3.30  
Processing Host: hp4920a

Concentration Formula: Uf/Vo

Name	Value	Description
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 3 Chlorobenzene-d5	20.022	3277364	50.000

RT	AREA	CONCENTRATIONS		QUAL	QUANT		
		ON-COL( ug/L)	FINAL( ug/L)		LIBRARY	LIB ENTRY	CPND #
<hr/>							
Siloxane			CAS #:				
18.323	374681	5.71618957	5.716	0		0	3
<hr/>							
Siloxane			CAS #:				
22.254	522774	7.97551826	7.976	0		0	3

Mar 26 03

Date : 24-MAR-03 17:59:00

Client ID: SH102-0317-D00703

Instrument: 5972H.i

Sample Info: 0303L980-005 H032401,[AL=0624C01],[DC=00]

Purge Volume: 5.0

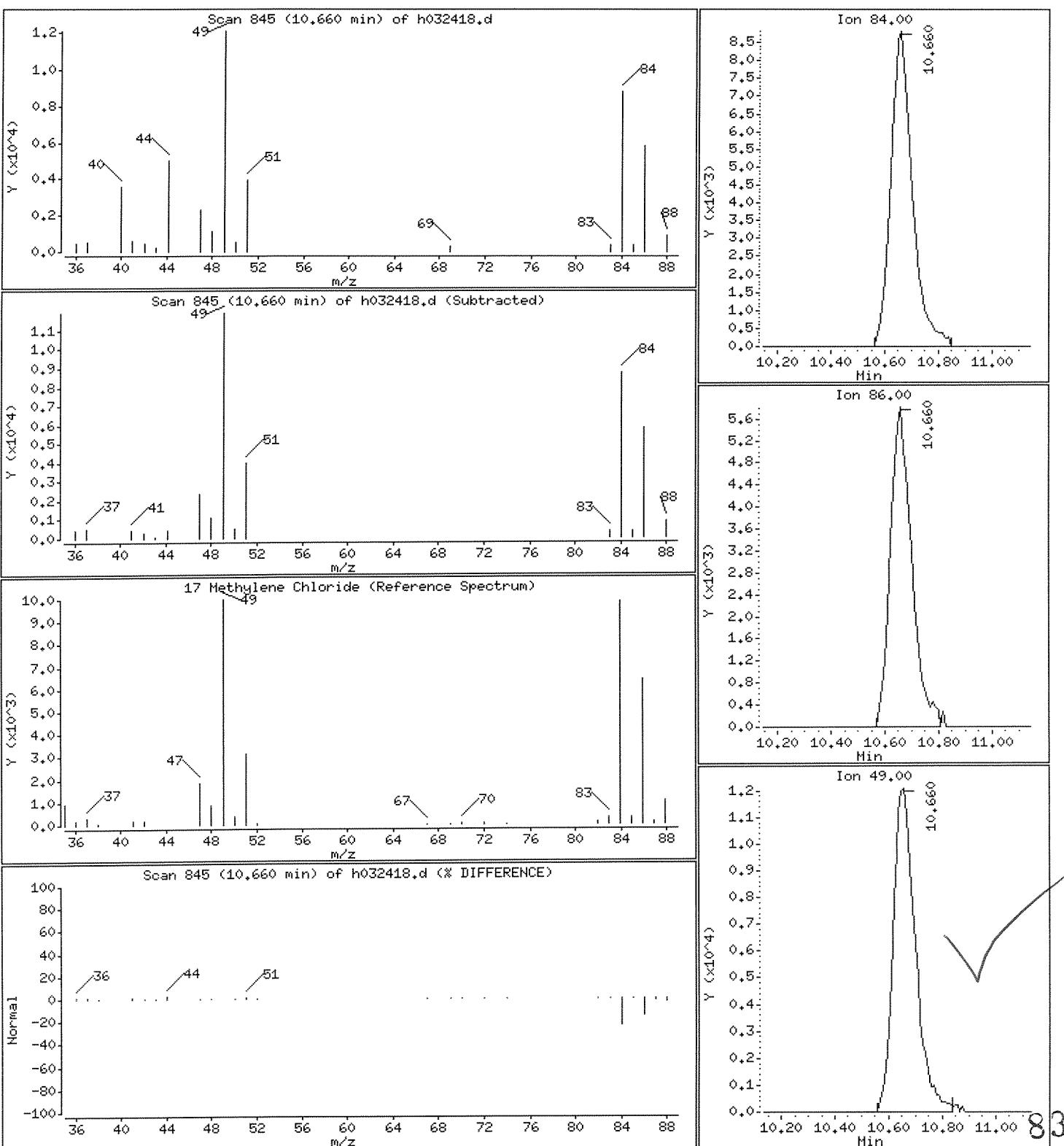
Operator: MFS

Column phase: RTX-624

Column diameter: 0.53

## 17 Methylene Chloride

Concentration: 4.608 ug/L



Date : 24-MAR-03 17:59:00

Client ID: SH102-0317-000703

Sample Info: 0303L980-005 H032401,[AL=0624C01],[DC=00]

Purge Volume: 5.0

Column phase: RTX-624

Instrument: 5972H.i

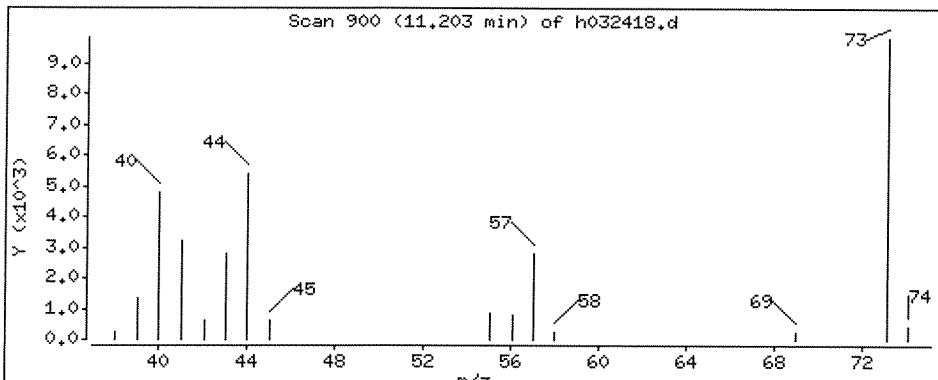
Operator: MFS

Column diameter: 0.53

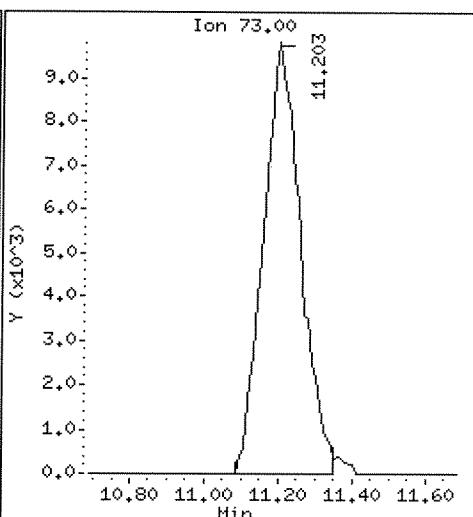
## 20 Methyl-T-Butylether

Concentration: 4.058 ug/L

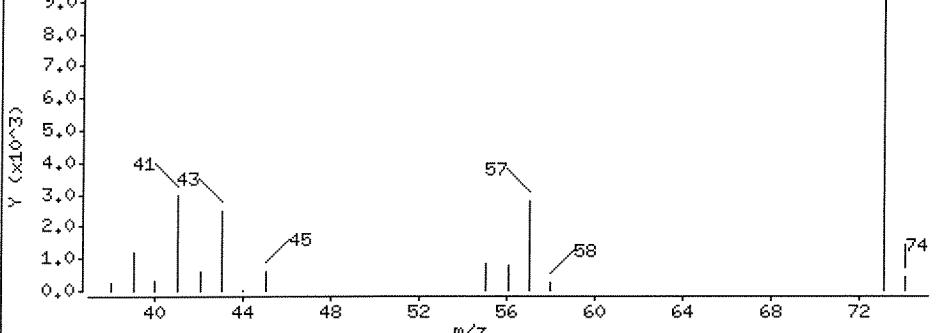
Scan 900 (11,203 min) of h032418.d



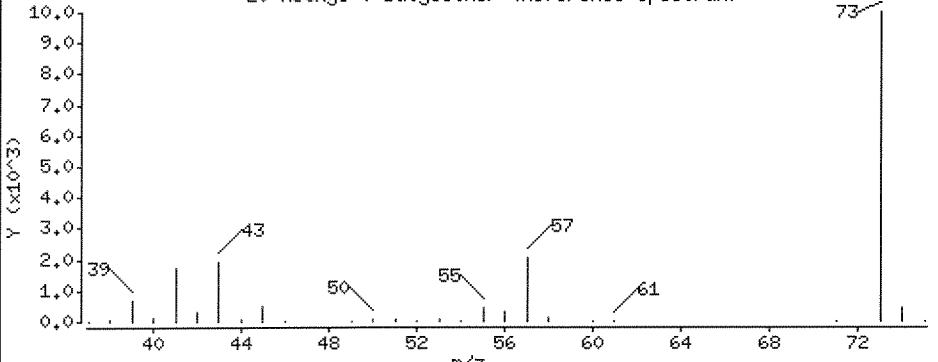
Ion 73.00



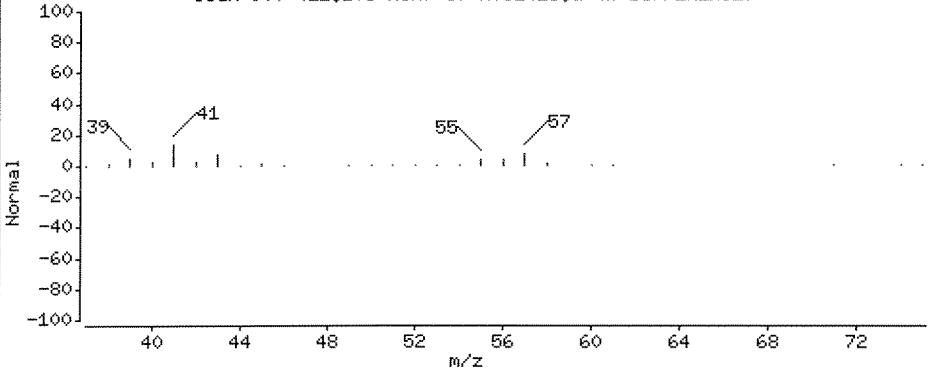
Scan 900 (11,203 min) of h032418.d (Subtracted)



20 Methyl-T-Butylether (Reference Spectrum)



Scan 900 (11,203 min) of h032418.d (% DIFFERENCE)



Data File: /chem/msvoa3/5972h.i/h032403o.b/h032418.d

Page 7

Date : 24-MAR-03 17:59:00

Client ID: SH102-0317-D00703

Instrument: 5972H.i

Sample Info: 0303L980-005 H032401,[AL=0624C0],[DC=00]

Purge Volume: 5.0

Operator: MFS

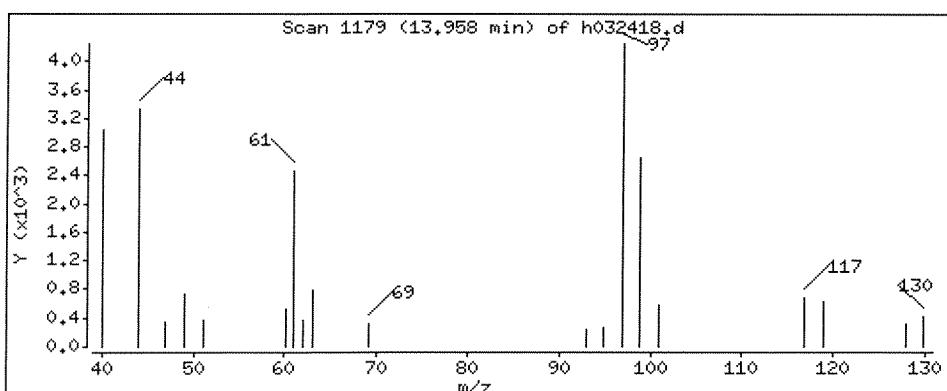
Column phase: RTX-624

Column diameter: 0.53

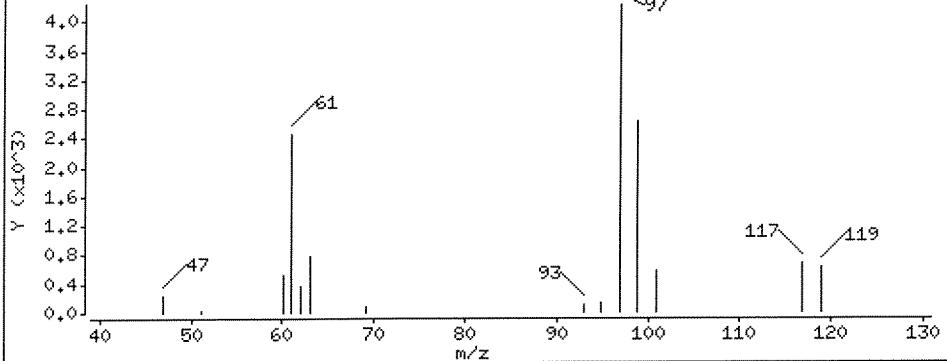
28 1,1,1-Trichloroethane

Concentration: 1.420 ug/L

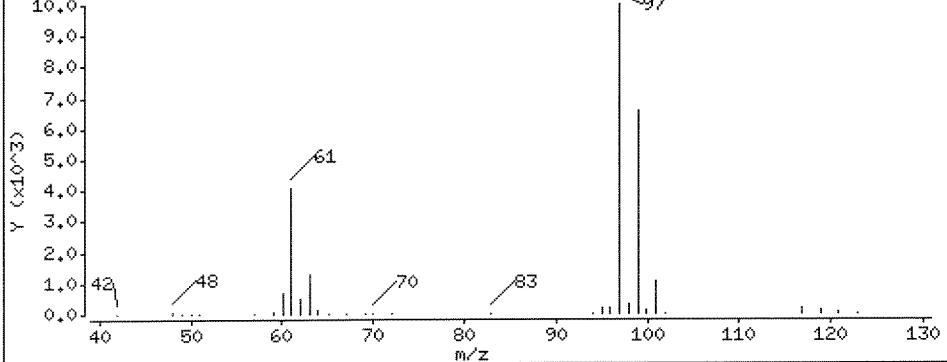
Scan 1179 (13.958 min) of h032418.d



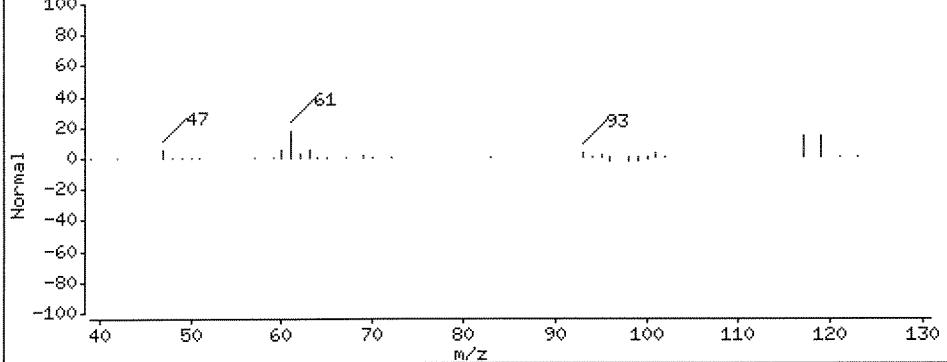
Scan 1179 (13.958 min) of h032418.d (Subtracted)



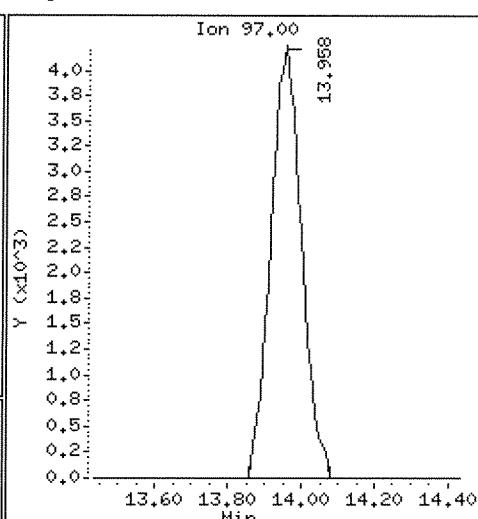
28 1,1,1-Trichloroethane (Reference Spectrum)



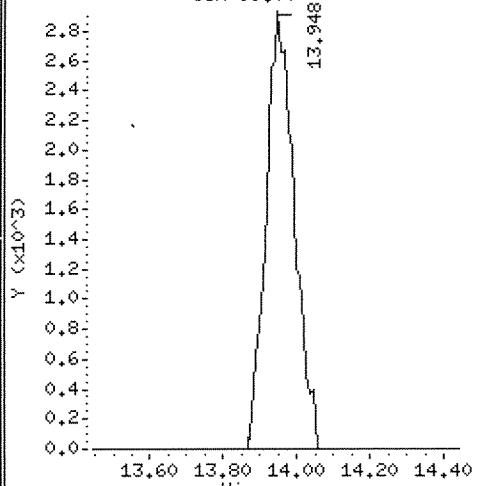
Scan 1179 (13.958 min) of h032418.d (% DIFFERENCE)



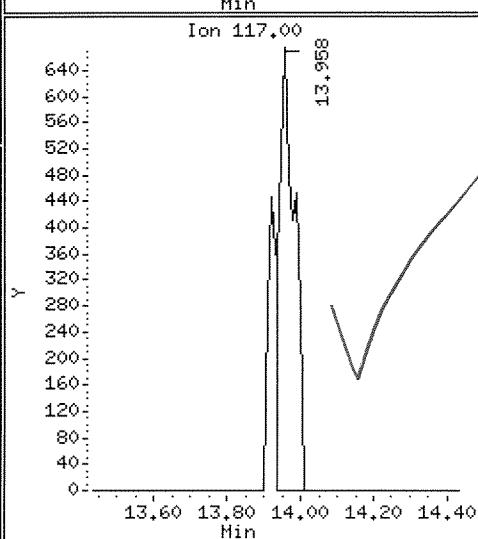
Ion 97.00



Ion 99.00



Ion 117.00



Data File: /chem/msvoa3/5972h.i/h032403o.b/h032418.d

Page 8

Date : 24-MAR-03 17:59:00

Client ID: SH102-0317-D00703

Instrument: 5972H.i

Sample Info: 0303L980-005 H032401,[AL=0624C01],[DC=00]

Purge Volume: 5.0

Operator: MFS

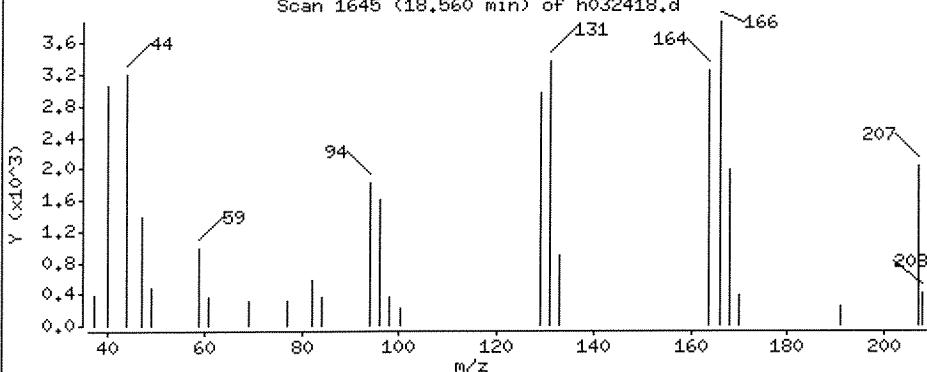
Column phase: RTX-624

Column diameter: 0.53

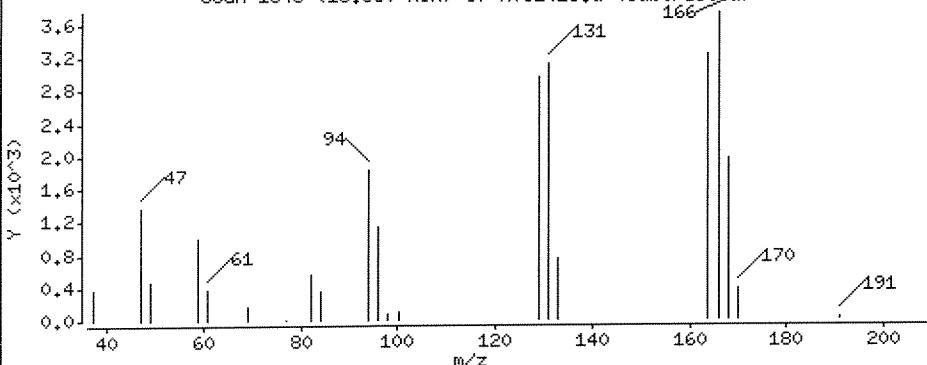
41 Tetrachloroethene

Concentration: 1.576 ug/L

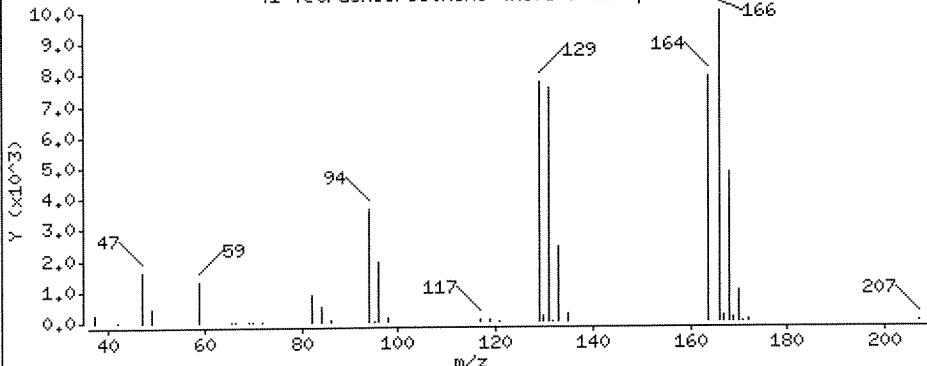
Scan 1645 (18.560 min) of h032418.d



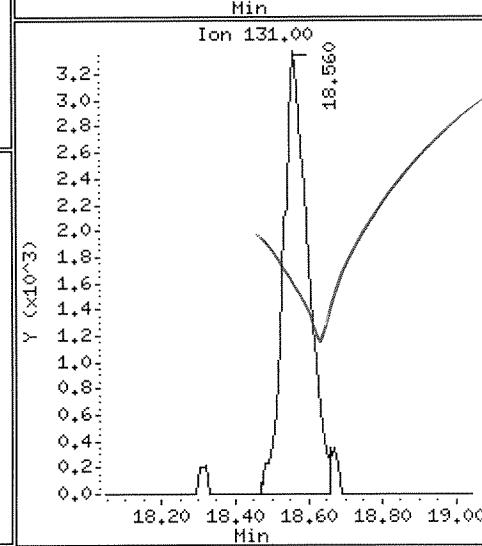
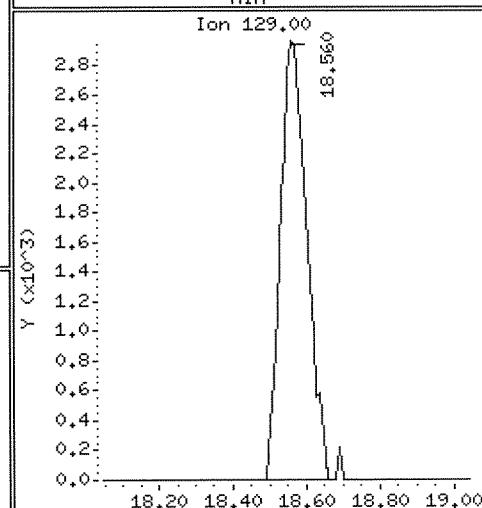
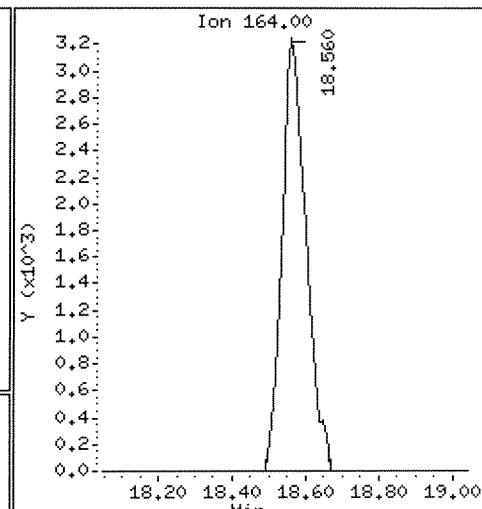
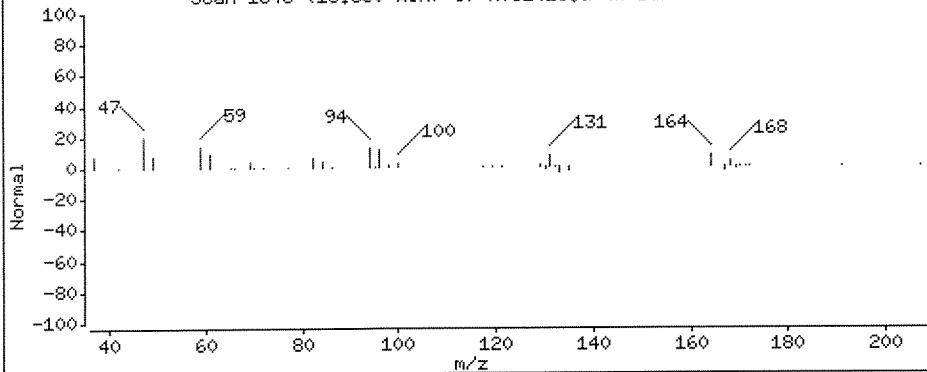
Scan 1645 (18.560 min) of h032418.d (Subtracted)



41 Tetrachloroethene (Reference Spectrum)



Scan 1645 (18.560 min) of h032418.d (% DIFFERENCE)



Date : 24-MAR-03 17:59:00

Client ID: SH102-0317-D00703

Instrument: 5972H,i

Sample Info: 0303L980-005 H032401,[AL=0624C01],[IDC=001]

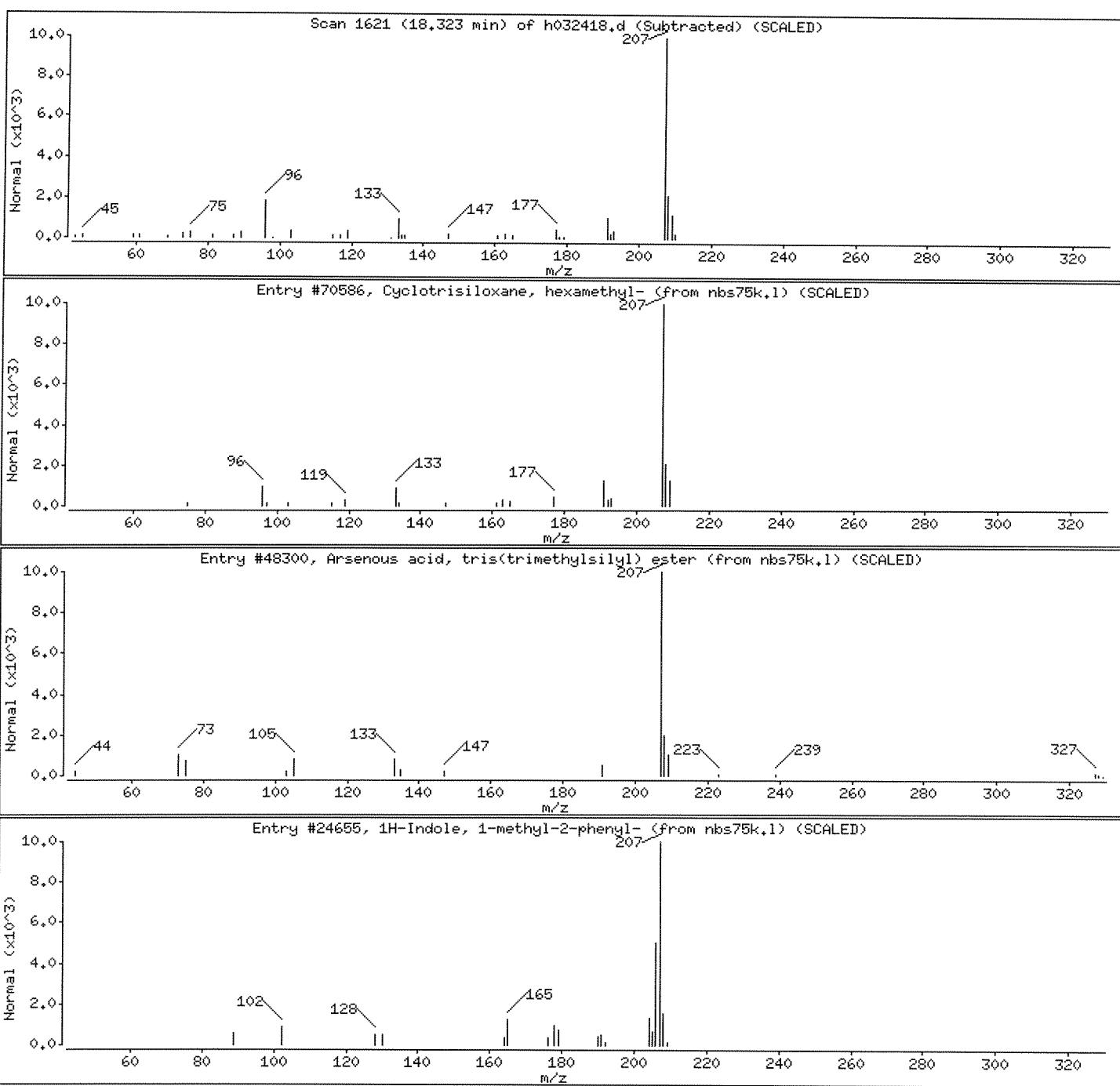
Purge Volume: 5.0

Operator: MFS

Column phase: RTX-624

Column diameter: 0.53

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Siloxane						
Cyclotrisiloxane, hexamethyl-	541-05-9	nbs75k+1	70586	90	C6H18O3Si3	222
Arsenous acid, tris(trimethylsilyl) este	55429-29-3	nbs75k+1	48300	50	C9H27AsO3Si3	342
1H-Indole, 1-methyl-2-phenyl-	3558-24-5	nbs75k+1	24655	38	C15H13N	207



Data File: /chem/msvoa3/5972h,i/h032403a,b/h032418.d

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Date : 24-MAR-03 17:59:00

Client ID: SH102-0317-D00703

Instrument: 5972H.i

Sample Info: 0303L980-005 H032401,[AL=0624C01],[DC=00]

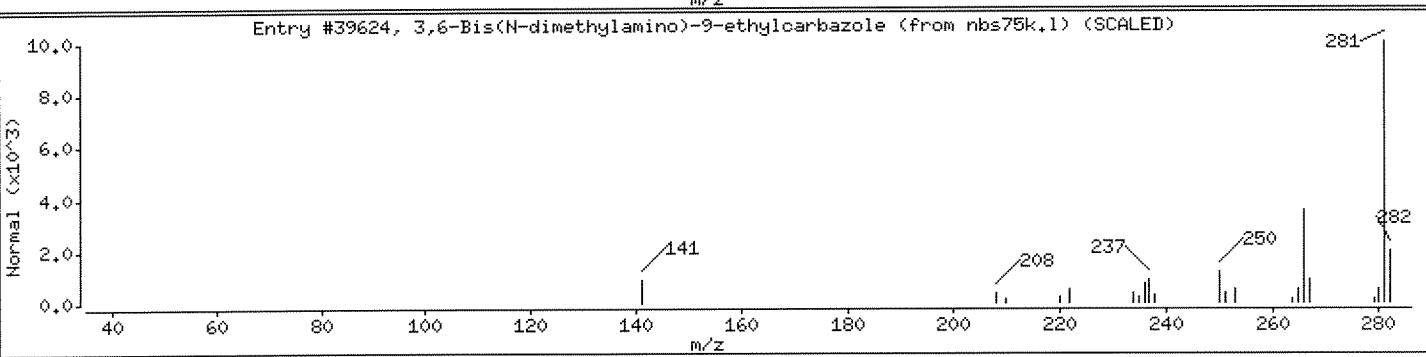
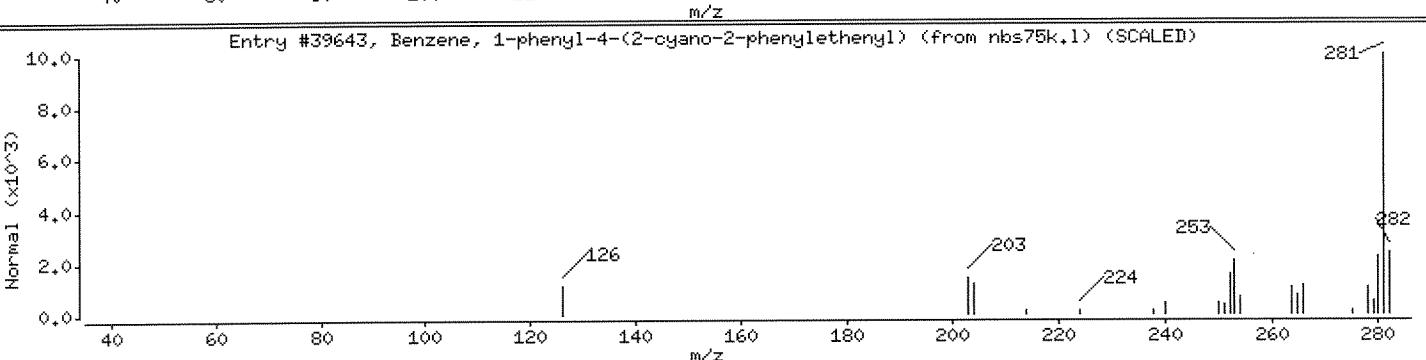
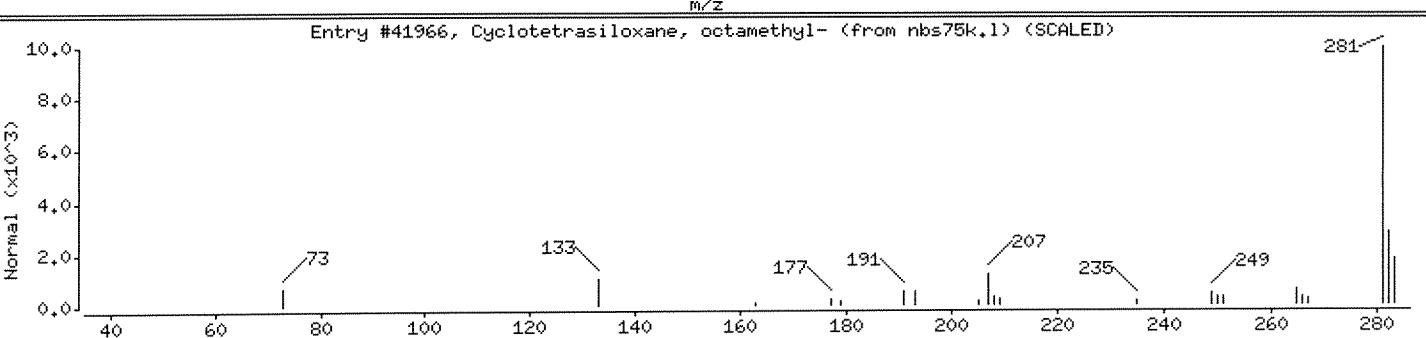
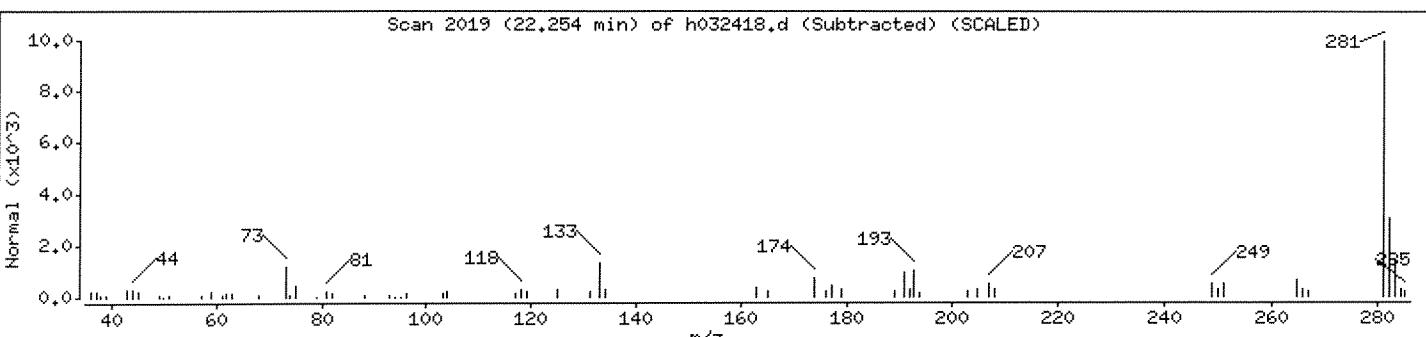
Purge Volume: 5.0

Operator: MFS

Column phase: RTX-624

Column diameter: 0.53

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Siloxane						
Cyclotetrasiloxane, octamethyl-	556-67-2	nbs75k,1	41966	86	C8H24O4Si4	296
Benzene, 1-phenyl-4-(2-cyano-2-phenylethyl	27869-56-3	nbs75k,1	39643	50	C21H15N	281
3,6-Bis(N-dimethylamino)-9-ethylcarbazol	57103-04-5	nbs75k,1	39624	28	C18H23N3	281



## VOLATILE ORGANICS ANALYSIS DATA SHEET

VOA TB

Lab Name: Lionville Labs, Inc. Contract: 01667601001Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 0303L980-006Sample wt/vol: 5.00 (g/mL) MLLab File ID: h032413Level: (low/med) LOWDate Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

COMPOUND

(ug/L or ug/Kg) ug/L

Q

75-71-8-----	Dichlorodifluoromethane	10	U
74-87-3-----	Chloromethane	10	U
75-01-4-----	Vinyl Chloride	10	U
74-83-9-----	Bromomethane	10	U
75-00-3-----	Chloroethane	10	U
75-69-4-----	Trichlorofluoromethane	10	U
75-35-4-----	1,1-Dichloroethene	10	U
76-13-1-----	1,1,2-Trichlorotrifluoroethane	10	U
67-64-1-----	Acetone	10	U
75-15-0-----	Carbon Disulfide	10	U
79-20-9-----	Methyl Acetate	10	U
75-09-2-----	Methylene Chloride	6	JB
156-60-5-----	Trans-1,2-dichloroethene	10	U
1634-04-4-----	tert-Butyl Methyl Ether	10	U
75-34-3-----	1,1-Dichloroethane	10	U
156-59-2-----	Cis-1,2-dichloroethene	10	U
78-93-3-----	2-Butanone	10	U
67-66-3-----	Chloroform	10	U
71-55-6-----	1,1,1-Trichloroethane	10	U
110-82-7-----	Cyclohexane	10	U
56-23-5-----	Carbon Tetrachloride	10	U
71-43-2-----	Benzene	10	U
107-06-2-----	1,2-Dichloroethane	10	U
79-01-6-----	Trichloroethene	10	U
108-87-2-----	Methylcyclohexane	10	U
78-87-5-----	1,2-Dichloropropane	10	U
75-27-4-----	Bromodichloromethane	10	U
10061-01-5-----	cis-1,3-Dichloropropene	10	U
108-10-1-----	4-Methyl-2-pentanone	10	U
108-88-3-----	Toluene	10	U
10061-02-6-----	Trans-1,3-Dichloropropene	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
127-18-4-----	Tetrachloroethene	10	U
591-78-6-----	2-Hexanone	10	U

## VOLATILE ORGANICS ANALYSIS DATA SHEET

VOA TB

Lab Name: Lionville Labs, Inc. Contract: 01667601001Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 0303L980-006Sample wt/vol: 5.00 (g/mL) MLLab File ID: h032413Level: (low/med) LOWDate Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) ug/L

Q

124-48-1-----Dibromochloromethane	10	U
106-93-4-----1,2-Dibromoethane	10	U
108-90-7-----Chlorobenzene	10	U
100-41-4-----Ethylbenzene	10	U
1330-20-7-----Xylene (total)	10	U
100-42-5-----Styrene	10	U
75-25-2-----Bromoform	10	U
98-82-8-----Isopropylbenzene	10	U
79-34-5-----1,1,2,2-Tetrachloroethane	10	U
541-73-1-----1,3-Dichlorobenzene	10	U
106-46-7-----1,4-Dichlorobenzene	10	U
95-50-1-----1,2-Dichlorobenzene	10	U
96-12-8-----1,2-Dibromo-3-chloropropane	10	U
120-82-1-----1,2,4-Trichlorobenzene	10	U

FORM 1 V-2

3/90

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

VOA TB

Lab Name: Lionville Labs, Inc. Contract: 01667601001Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 0303L980-006Sample wt/vol: 5.00 (g/mL) MLLab File ID: h032413Level: (low/med) LOWDate Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 2

## CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	SILOXANE	18.316	5	J
2.	SILOXANE	22.256	10	J

Data File: /chem/mswoa3/5972h.i/h032403o.b/h032413.d

Date : 24-MAR-03 15:03:00

Client ID: VDA TB

Sample Info: 03031980-006 H032401,[AL=0624001],[DC=00]

Purge Volume: 5.0

Column phase: RTX-624

Page 4

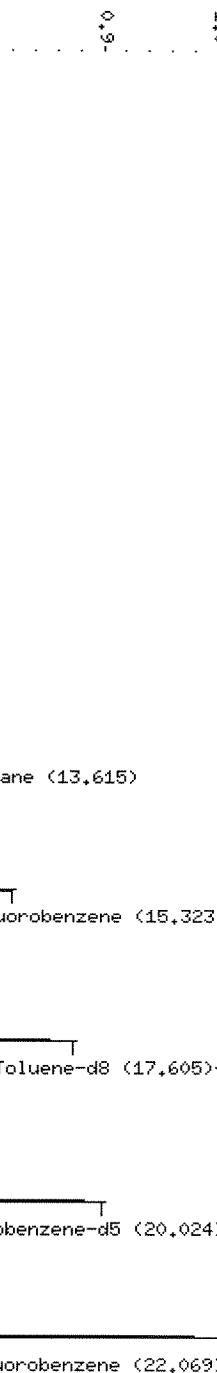
92

Instrument: 5972H.i

Operator: MFS

Column diameter: 0.53

/chem/mswoa3/5972h.i/h032403o.b/h032413.d



Lionville Laboratory Inc.

Data file : /chem/msvoa3/5972h.i/h032403o.b/h032413.d  
Lab Smp Id: 0303L980-006 Client Smp ID: VOA TB  
Inj Date : 24-MAR-03 15:03:00  
Operator : MFS Inst ID: 5972H.i  
Smp Info : 0303L980-006 H032401, [AL=O624CO], [DC=00]  
Misc Info : DIL,1,WSRC 5ML  
Comment :  
Method : /chem/msvoa3/5972h.i/h032403o.b/olm4.1w.m  
Meth Date : 26-Mar-03 10:32:50 rubinob Quant Type: ISTD  
Cal Date : 24-MAR-03 08:50:00 Cal File: h032403.d  
Als bottle: 14  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: O624CO.sub  
Target Version: 3.30  
Processing Host: hp4920a

Concentration Formula: Uf/Vo

Name	Value	Description
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	( ug/L)
* 1 Bromochloromethane	128	13.615	13.605	(1.000)	406410	50.0000	
* 2 1,4-Difluorobenzene	114	15.333	15.314	(1.000)	1640505	50.0000	
* 3 Chlorobenzene-d5	117	20.024	20.015	(1.000)	1314480	50.0000	
\$ 4 1,2-Dichloroethane-d4	65	14.622	14.603	(1.074)	711024	48.8071	48.807
\$ 5 Toluene-d8	98	17.605	17.585	(0.879)	1442934	53.8513	53.851
\$ 6 Bromofluorobenzene	95	22.069	22.059	(1.102)	1044315	46.1874	46.187
68 Dichlorodifluoromethane	85.00	Compound Not Detected.					
7 Chloromethane	50.00	Compound Not Detected.					
8 Vinyl Chloride	62.00	Compound Not Detected.					
9 Bromomethane	94.00	Compound Not Detected.					
10 Chloroethane	64.00	Compound Not Detected.					
11 Trichlorofluoromethane	101.00	Compound Not Detected.					
14 1,1-Dichloroethene	96.00	Compound Not Detected.					
65 Freon-113	151.00	Compound Not Detected.					
16 Acetone	43.00	Compound Not Detected.					
15 Carbon Disulfide	76.00	Compound Not Detected.					
69 Methyl Acetate	43.00	Compound Not Detected.					

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN ( ug/L)	FINAL ( ug/L)
17 Methylene Chloride	84		10.642	10.643 (0.782)		85124	6.22095	6.221(a) ✓
19 trans-1,2-Dichloroethene	96.00			Compound Not Detected.				
20 Methyl-T-Butylether	73.00			Compound Not Detected.				
23 1,1-Dichloroethane	63.00			Compound Not Detected.				
25 cis-1,2-Dichloroethene	96.00			Compound Not Detected.				
26 2-Butanone	43.00			Compound Not Detected.				
27 Chloroform	83.00			Compound Not Detected.				
28 1,1,1-Trichloroethane	97.00			Compound Not Detected.				
70 Cyclohexane	56.00			Compound Not Detected.				
29 Carbon Tetrachloride	117.00			Compound Not Detected.				
30 Benzene	78.00			Compound Not Detected.				
31 1,2-Dichloroethane	62.00			Compound Not Detected.				
32 Trichloroethene	130.00			Compound Not Detected.				
71 Methylcyclohexane	83.00			Compound Not Detected.				
33 1,2-Dichloropropane	63.00			Compound Not Detected.				
34 Bromodichloromethane	83.00			Compound Not Detected.				
36 cis-1,3-Dichloropropene	75.00			Compound Not Detected.				
37 4-Methyl-2-Pentanone	43	17.595	17.516 (0.879)		10637	0.91956	0.9196(a) X	
38 Toluene	91.00			Compound Not Detected.				
39 trans-1,3-Dichloropropene	75.00			Compound Not Detected.				
40 1,1,2-Trichloroethane	97.00			Compound Not Detected.				
41 Tetrachloroethene	164.00			Compound Not Detected.				
43 2-Hexanone	43.00			Compound Not Detected.				
42 Dibromochloromethane	129.00			Compound Not Detected.				
72 1,2-Dibromoethane	107.00			Compound Not Detected.				
44 Chlorobenzene	112.00			Compound Not Detected.				
45 Ethylbenzene	106.00			Compound Not Detected.				
46 m & p-Xylene	106.00			Compound Not Detected.				
47 o-Xylene	106.00			Compound Not Detected.				
M 48 Xylenes (Total)	106.00			Compound Not Detected.				
49 Styrene	104.00			Compound Not Detected.				
50 Bromoform	173.00			Compound Not Detected.				
73 Isopropylbenzene	105.00			Compound Not Detected.				
51 1,1,2,2-Tetrachloroethane	83.00			Compound Not Detected.				
52 1,3-Dichlorobenzene	146.00			Compound Not Detected.				
53 1,4-Dichlorobenzene	146.00			Compound Not Detected.				
54 1,2-Dichlorobenzene	146.00			Compound Not Detected.				
74 1,2-Dibromo-3-Chloropropane	75.00			Compound Not Detected.				
75 1,2,4-Trichlorobenzene	180.00			Compound Not Detected.				

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ) .

3/26/03

Lionville Laboratory Inc.

Data file : /chem/msvoa3/5972h.i/h032403o.b/h032413.d  
Lab Smp Id: 0303L980-006 Client Smp ID: VOA TB  
Inj Date : 24-MAR-03 15:03:00  
Operator : MFS Inst ID: 5972H.i  
Smp Info : 0303L980-006 H032401, [AL=0624CO], [DC=00]  
Misc Info : DIL,1,WSRC 5ML  
Comment :  
Method : /chem/msvoa3/5972h.i/h032403o.b/olm4.1w.m  
Meth Date : 26-Mar-03 10:32:50 rubinob Quant Type: ISTD  
Cal Date : 24-MAR-03 08:50:00 Cal File: h032403.d  
Als bottle: 14  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 0624CO.sub  
Target Version: 3.30  
Processing Host: hp4920a

Concentration Formula: Uf/Vo

Name	Value	Description
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 3 Chlorobenzene-d5	20.024	4288259	50.000

RT	AREA	CONCENTRATIONS		QUAL	QUANT		
		ON-COL( ug/L)	FINAL( ug/L)		LIBRARY	LIB ENTRY	CPND #
====	====	=====	=====	====	=====	=====	=====
Siloxane			CAS #:				
18.316	447230	5.21458908	5.214	0		0	3
Siloxane			CAS #:				
22.256	1231726	14.3616055	14.362	0		0	3

3/26/03

Date : 24-MAR-03 15:03:00

Client ID: VOA TB

Instrument: 5972H.i

Sample Info: 0303L980-006 H032401,[AL=062400],[DC=00]

Purge Volume: 5.0

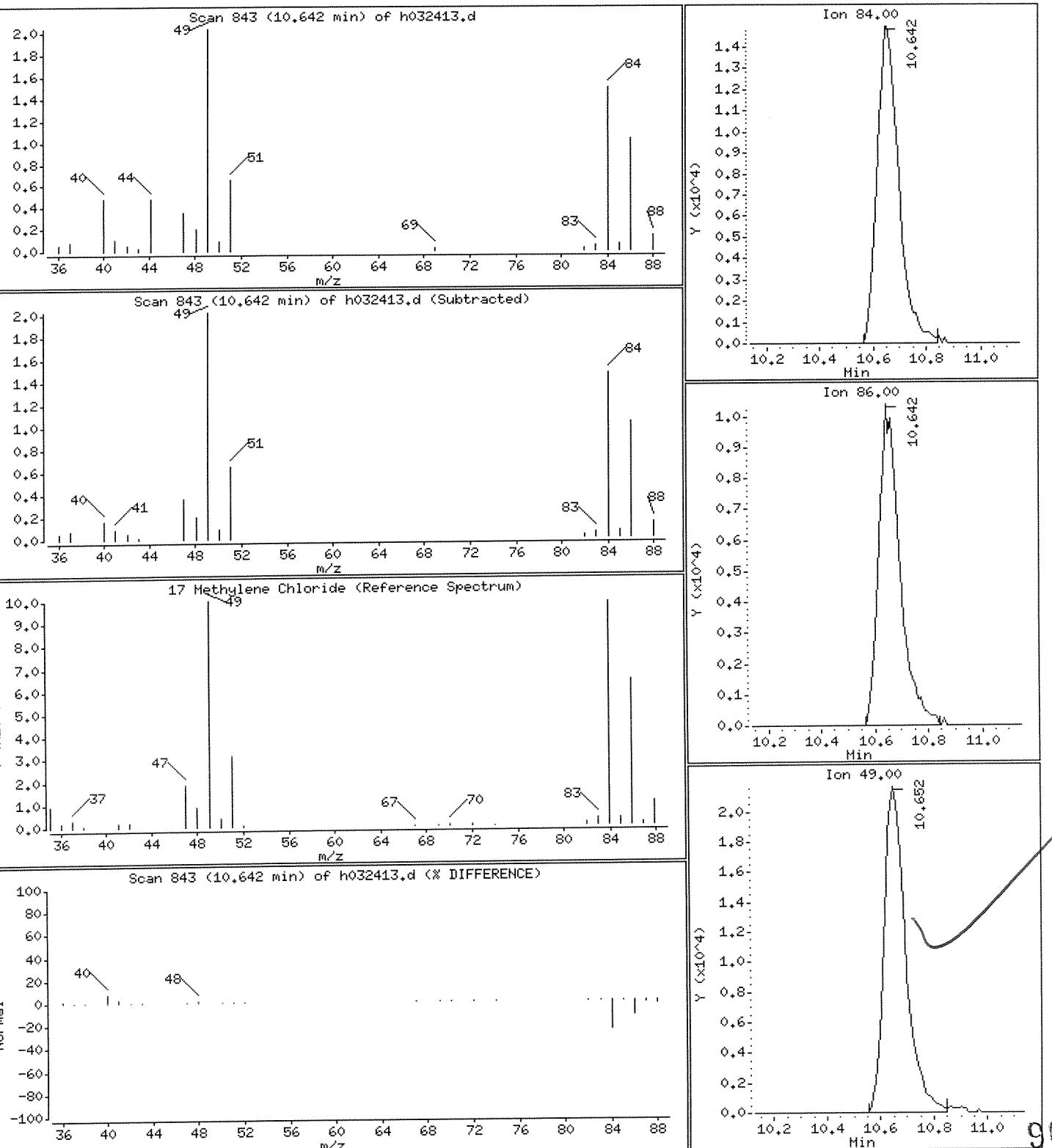
Operator: MFS

Column phase: RTX-624

Column diameter: 0.53

## 17 Methylene Chloride

Concentration: 6.221 ug/L



Date : 24-MAR-03 15:03:00

Client ID: VOA TB

Instrument: 5972H.i

Sample Info: 0303L980-006 H032401,[AL=0624C01],[DC=00]

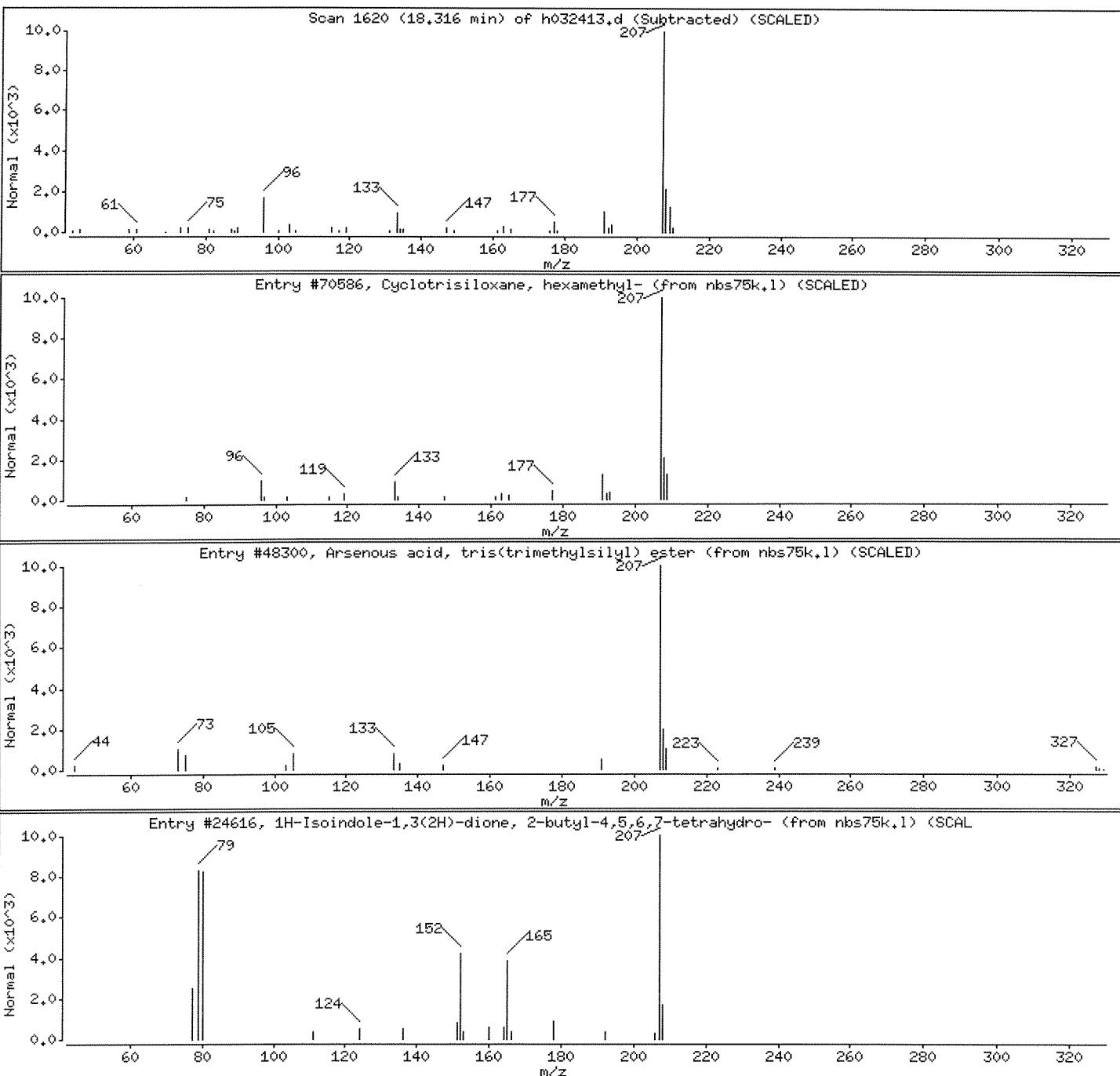
Purge Volume: 5.0

Operator: MFS

Column phase: RTX-624

Column diameter: 0.53

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Siloxane						
Cyclotrisiloxane, hexamethyl-	541-05-9	nbs75k,1	70586	90	C6H18O3Si3	222
Arsenous acid, tris(trimethylsilyl) este	55429-29-3	nbs75k,1	48300	50	C9H27As03Si3	342
1H-Isoindole-1,3(2H)-dione, 2-butyl-4,5,	54934-85-9	nbs75k,1	24616	40	C12H17N02	207



Data File: /chem/msvoa3/5972h.i/h032403o.b/h032413.d

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Date : 24-MAR-03 15:03:00

Client ID: VOA TB

Instrument: 5972H.i

Sample Info: 0303L980-006 H032401,[AL=0624C01],[IDC=00]

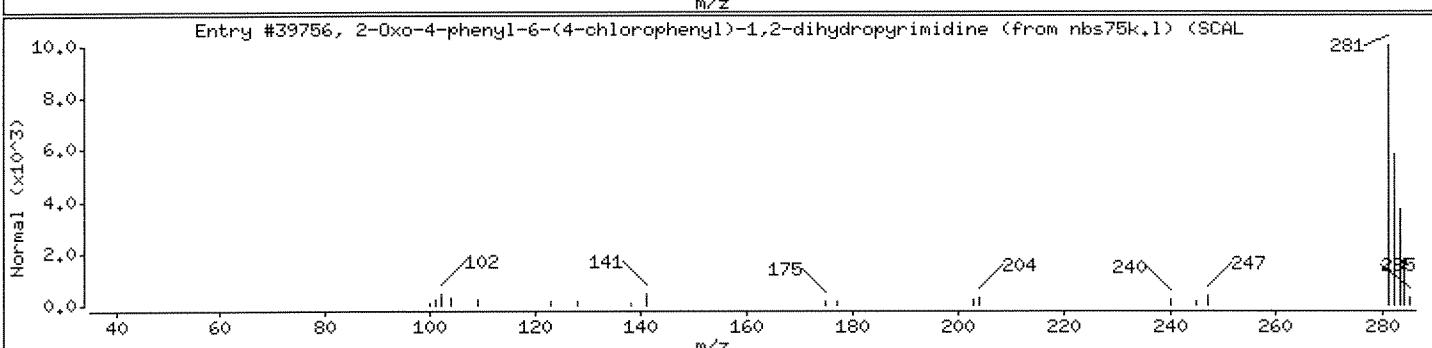
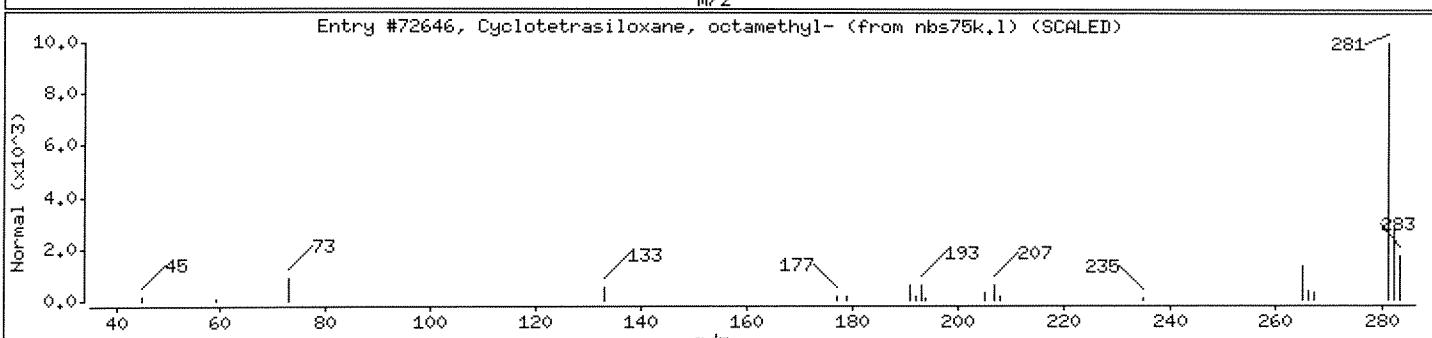
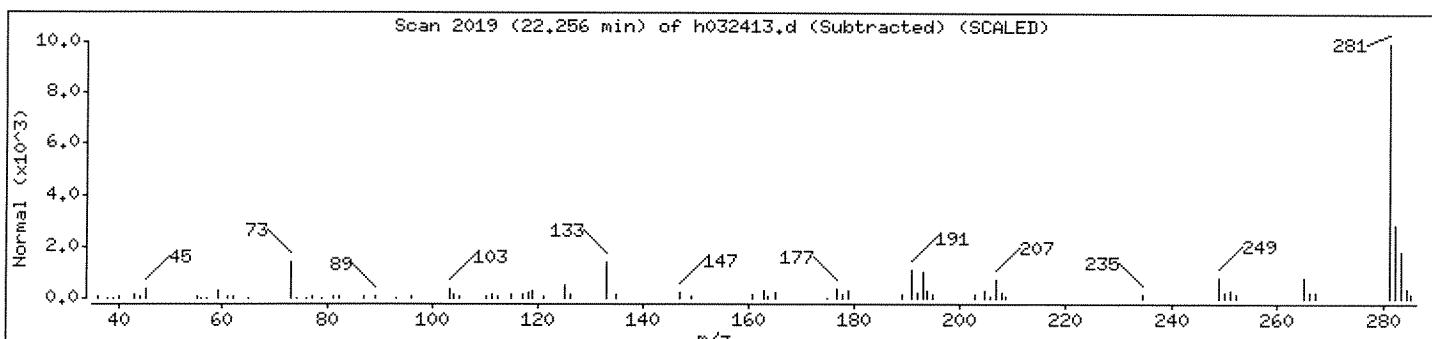
Purge Volume: 5.0

Operator: MFS

Column phase: RTX-624

Column diameter: 0.53

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Siloxane						
Cyclotetrasiloxane, octamethyl-2-Oxo-4-phenyl-6-(4-chlorophenyl)-1,2-di-	556-67-2 0-00-0	nbs75k+1	72646 39756	64 12	C8H24O4Si4 C16H11ClN2O	296 282



## **Calibration Standard Data**

6A  
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lionville Laboratory Inc. Contract: 01667-601-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 03L980

Instrument ID: 5972H Calibration Date(s): 03/06/3 03/06/3

Heated Purge: (Y/N) Y Calibration Time(s): 0737 1204

GC Column: RTX-624 ID: 0.53 (mm)

LAB FILE ID:	RRF10 =H030606	RRF20 =H030609	RRF50	RRF100	RRF200	RRF	% RSD
	RRF50 =H030604	RRF100=H030603		RRF200=H030602			
COMPOUND	RRF10	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
Chloromethane	0.870	0.763	0.798	0.767	0.778	0.795	5.6
Bromomethane	* 1.265	1.162	1.205	1.111	1.102	1.169	5.8*
Vinyl Chloride	* 0.956	0.849	0.923	0.877	0.911	0.903	4.6*
Chloroethane	0.665	0.610	0.614	0.574	0.619	0.616	5.3
Trichlorofluoromethane	3.128	2.899	3.276	2.935	3.002	3.048	5.1
Methylene Chloride	2.444	1.433	1.392	1.218	1.274	1.552	32.6
Acetone	0.316	0.392	0.386	0.339	0.343	0.355	9.2
Carbon Disulfide	3.319	3.106	3.271	3.163	3.370	3.246	3.4
1,1-Dichloroethene	* 1.205	1.120	1.245	1.184	1.222	1.195	4.0*
1,1-Dichloroethane	* 2.526	2.417	2.472	2.429	2.686	2.506	4.4*
cis-1,2-Dichloroethene	1.346	1.282	1.385	1.336	1.411	1.352	3.7
trans-1,2-Dichloroethene	1.238	1.174	1.245	1.194	1.258	1.222	3.0
Chloroform	* 3.320	3.133	3.260	3.162	3.376	3.250	3.2*
1,2-Dichloroethane	* 2.043	2.001	2.082	2.022	2.252	2.080	4.8*
2-Butanone	0.549	0.598	0.659	0.586	0.609	0.600	6.7
1,1,1-Trichloroethane	* 0.749	0.726	0.758	0.738	0.760	0.746	1.9*
Carbon Tetrachloride	* 0.773	0.742	0.778	0.735	0.756	0.757	2.5*
cis-1,3-Dichloropropene	* 0.516	0.510	0.551	0.565	0.595	0.547	6.5*
Bromodichloromethane	* 0.830	0.812	0.830	0.804	0.828	0.821	1.5*
1,2-Dichloropropane	0.350	0.338	0.345	0.340	0.371	0.349	3.9
Trichloroethene	* 0.443	0.425	0.440	0.429	0.438	0.435	1.8*
Dibromochloromethane	* 0.742	0.746	0.795	0.750	0.725	0.752	3.5*
1,1,2-Trichloroethane	* 0.365	0.365	0.393	0.372	0.374	0.374	3.1*
Benzene	* 0.777	0.751	0.818	0.800	0.834	0.796	4.1*
trans-1,3-Dichloropropene	* 0.443	0.441	0.499	0.507	0.539	0.486	8.8*
Bromoform	* 0.586	0.625	0.700	0.635	0.590	0.627	7.3*
4-Methyl-2-Pentanone	0.411	0.490	0.546	0.500	0.516	0.493	10.2
2-Hexanone	0.214	0.300	0.355	0.322	0.331	0.304	17.8
Tetrachloroethene	* 0.525	0.501	0.514	0.486	0.476	0.500	4.0*
1,1,2,2-Tetrachloroethane	* 0.764	0.858	0.917	0.839	0.825	0.841	6.6*
Toluene	* 1.147	1.115	1.209	1.159	1.195	1.165	3.2*
Chlorobenzene	* 0.992	0.974	1.019	0.952	0.950	0.977	3.0*
Ethylbenzene	* 0.399	0.393	0.424	0.410	0.410	0.407	2.9*
Styrene	* 0.739	0.754	0.886	0.849	0.858	0.817	8.1*
o-Xylene	* 0.482	0.481	0.534	0.506	0.510	0.503	4.4*
m & p-Xylene	* 0.512	0.505	0.556	0.521	0.523	0.523	3.7*
Xylenes (Total)	* 0.482	0.481	0.534	0.506	0.510	0.503	4.4*

\* Compounds with required minimum RRF and maximum %RSD values.

All other compounds must meet a minimum RRF of 0.010.

6A  
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lionville Laboratory Inc. Contract: 01667-601-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 03L980

Instrument ID: 5972H Calibration Date(s): 03/06/3 03/06/3

Heated Purge: (Y/N) Y Calibration Time(s): 0737 1204

GC Column: RTX-624 ID: 0.53 (mm)

LAB FILE ID: RRF50 =H030604	RRF10 =H030606			RRF20 =H030609 RRF100=H030603			RRF200 =H030602		% RSD
COMPOUND	RRF10	RRF20	RRF50	RRF100	RRF200	RRF			
1,2-Dichlorobenzene	0.783	0.827	0.938	0.899	0.868	0.863		7.0	
1,3-Dichlorobenzene	0.698	0.784	0.944	0.919	0.909	0.851		12.4	
1,4-Dichlorobenzene	0.839	0.897	1.028	0.993	0.964	0.944		8.1	
Freon-113	2.215	2.074	2.248	2.064	2.068	2.134		4.2	
Dichlorodifluoromethane	2.428	2.036	2.269	2.122	2.087	2.188		7.3	
Methyl-T-Butylether	2.467	2.503	2.705	2.576	2.709	2.592		4.3	
Methyl Acetate	1.055	1.141	1.269	1.081	1.182	1.146		7.4	
Cyclohexane	0.388	0.374	0.405	0.401	0.456	0.405		7.7	
Methylcyclohexane	0.411	0.393	0.420	0.413	0.435	0.414		3.6	
1,2-Dibromoethane	0.692	0.718	0.762	0.721	0.714	0.721		3.5	
Isopropylbenzene	1.476	1.471	1.621	1.534	1.536	1.528		4.0	
1,2-Dibromo-3-Chloropropane	0.163	0.251	0.262	0.242	0.236	0.231		17.0	
1,2,4-Trichlorobenzene	*	0.547	0.595	0.698	0.711	0.700	0.650	11.5*	
1,2-Dichloroethane-d4	1.892	1.811	1.946	1.954	2.096	1.940		5.4	
Toluene-d8	1.013	0.975	1.064	1.009	1.059	1.024		3.7	
Bromofluorobenzene	*	0.745	0.748	0.870	0.864	0.900	0.825	8.8*	

\* Compounds with required minimum RRF and maximum %RSD values.

All other compounds must meet a minimum RRF of 0.010.

Data File: \\LILAN04\chem\MSV0A\5972H.i\H0306030.b\H030606.D

Date : 06-Mar-2003 10:43

Client ID: VSTD10

Sample Info: VSTD10 H030601

Purge Volume: 5.0

Column phase: RTX-624

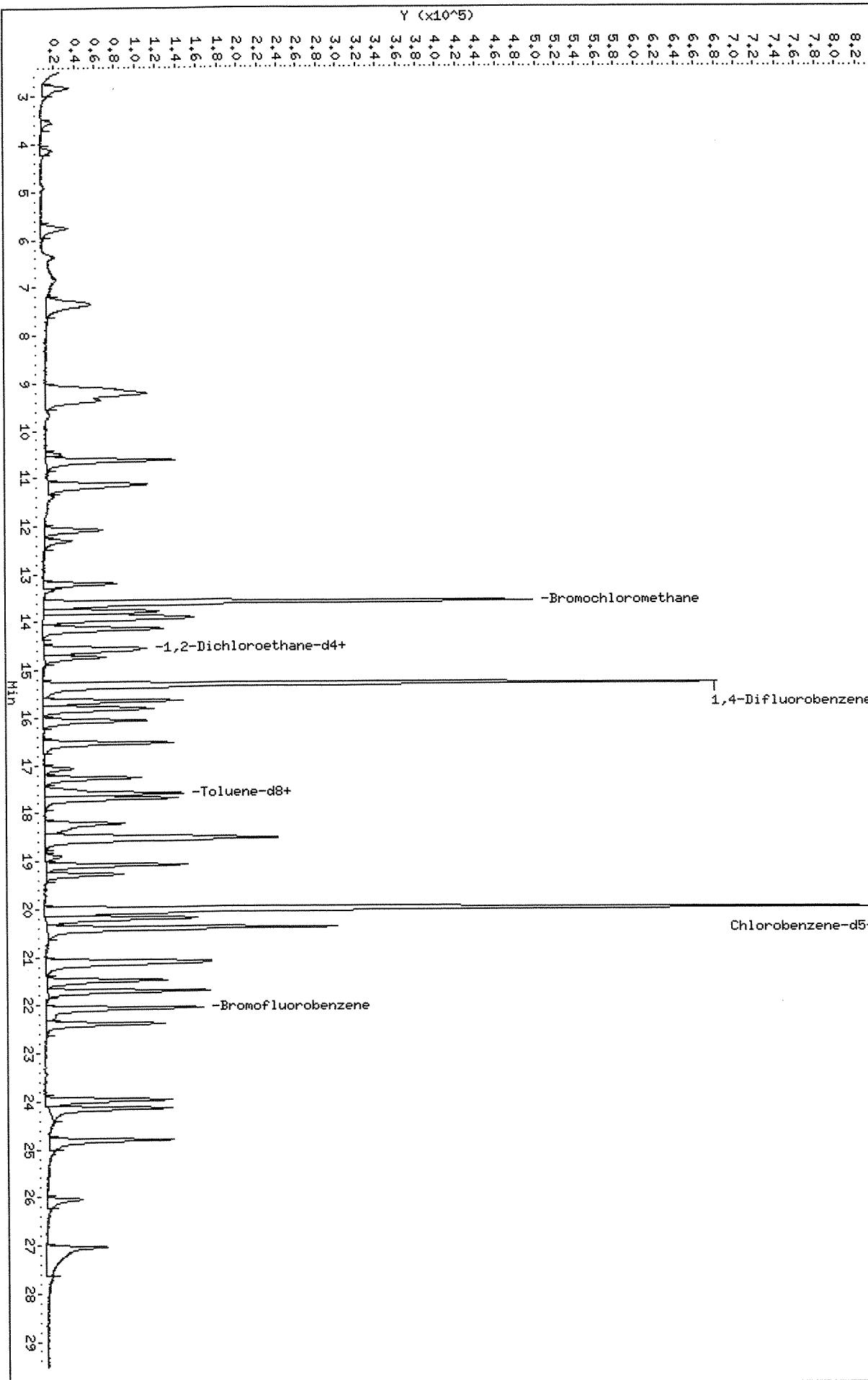
102

Instrument: 5972H.i

Operator: MFS

Column diameter: 0.53

\\LILAN04\chem\MSV0A\5972H.i\H0306030.b\H030606.D



Lionville Laboratory, Inc.

Data file : \\LILAN04\Chem\MSVOA\5972H.i\H030603o.b\H030606.D  
Lab Smp Id: VSTD10 Client Smp ID: VSTD10  
Inj Date : 06-MAR-2003 10:13  
Operator : MFS Inst ID: 5972h.i  
Smp Info : VSTD10 H030601  
Misc Info : DIL,1,DF8260 ICAL  
Comment :  
Method : \\LILAN04\Chem\MSVOA\5972H.i\H030603o.b\Olm4.1w.m  
Meth Date : 11-Mar-2003 08:57 schneidm Quant Type: ISTD  
Cal Date : 06-MAR-2003 10:13 Cal File: H030606.D  
Als bottle: 6 Calibration Sample, Level: 1  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: all.sub  
Target Version: 4.00  
Processing Host: MSVOA2

Concentration Formula: Amt \* DF \* Uf/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
VO	5.000	Sample Volume purged (mL)

Compounds	QUANT SIG	AMOUNTS						
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT ( ug/L)	ON-COL ( ug/L)
* 1 Bromochloromethane	128	13.613	13.613 (1.000)		304168	50.0000		
* 2 1,4-Difluorobenzene	114	15.321	15.321 (1.000)		1258518	50.0000		
* 3 Chlorobenzene-d5	117	20.022	20.022 (1.000)		1043817	50.0000		
\$ 4 1,2-Dichloroethane-d4	65	14.610	14.610 (0.954)		115106	10.0000	9.552	
\$ 5 Toluene-d8	98	17.602	17.602 (0.879)		211508	10.0000	9.864	
\$ 6 Bromofluorobenzene	95	22.066	22.066 (1.102)		155617	10.0000	8.913	
68 Dichlorodifluoromethane	85	2.828	2.828 (0.208)		147686	10.0000	10.974	
7 Chloromethane	50	3.549	3.549 (0.261)		52954	10.0000	10.812	
8 Vinyl Chloride	62	4.142	4.142 (0.304)		58141	10.0000	10.451	
9 Bromomethane	94	5.761	5.761 (0.423)		76944	10.0000	10.912	
10 Chloroethane	64	6.364	6.364 (0.467)		40476	10.0000	10.739	
11 Trichlorofluoromethane	101	7.351	7.351 (0.540)		190324	10.0000	10.354	
13 Acrolein	56	9.168	9.168 (0.674)		6893	10.0000	9.986(a)	
14 1,1-Dichloroethene	96	9.109	9.109 (0.669)		73288	10.0000	10.008	
65 Freon-113	151	9.228	9.228 (0.678)		134769	10.0000	10.470	
15 Carbon Disulfide	76	9.376	9.376 (0.689)		201933	10.0000	10.107	
66 Iodomethane	142	Compound Not Detected.						

Compounds	QUANT SIG	AMOUNTS					
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)
16 Acetone	43	9.682	9.682 (0.711)		19241	10.0000	9.502(a)
17 Methylene Chloride	84	10.640	10.640 (0.782)		148705	10.0000	14.854
64 Acetonitrile	41	10.512	10.512 (0.772)		9155	20.0000	23.313
69 Methyl Acetate	43	10.492	10.492 (0.771)		64206	10.0000	9.543(a)
M 18 1,2-Dichloroethene (Total)	96				157232	20.0000	19.922
19 trans-1,2-Dichloroethene	96	11.134	11.134 (0.818)		75314	10.0000	10.063
20 Methyl-T-Butylether	73	11.183	11.183 (0.822)		150104	10.0000	9.549(a)
21 Acrylonitrile	53	11.391	11.391 (0.837)		14756	10.0000	9.468(a)
23 1,1-Dichloroethane	63	12.092	12.092 (0.888)		153655	10.0000	9.916
24 Vinyl Acetate	43	12.299	12.299 (0.904)		137408	10.0000	9.177(a)
25 cis-1,2-Dichloroethene	96	13.208	13.208 (0.970)		81918	10.0000	9.869
26 2-Butanone	43	13.346	13.346 (0.980)		33397	10.0000	9.442(a)
27 Chloroform	83	13.790	13.790 (1.013)		201952	10.0000	10.103
70 Cyclohexane	56	13.889	13.889 (0.907)		97699	10.0000	9.348(a)
28 1,1,1-Trichloroethane	97	13.938	13.938 (1.024)		188439	10.0000	9.996
29 Carbon Tetrachloride	117	14.156	14.156 (1.040)		194639	10.0000	10.244
30 Benzene	78	14.551	14.551 (0.950)		195649	10.0000	9.670
31 1,2-Dichloroethane	62	14.738	14.738 (0.962)		124296	10.0000	9.704
32 Trichloroethene	130	15.657	15.657 (1.022)		111567	10.0000	10.152
71 Methylcyclohexane	83	15.825	15.825 (1.033)		103501	10.0000	9.797(a)
33 1,2-Dichloropropane	63	16.082	16.082 (1.050)		88133	10.0000	9.894
34 Bromodichloromethane	83	16.546	16.546 (1.080)		208812	10.0000	10.113
35 2-Chloroethylvinylether	63	17.079	17.079 (1.115)		37091	20.0000	14.882
36 cis-1,3-Dichloropropene	75	17.267	17.267 (0.862)		129986	10.0000	9.240
37 4-Methyl-2-Pentanone	43	17.523	17.523 (0.875)		85734	10.0000	8.635(a)
38 Toluene	91	17.711	17.711 (0.885)		239510	10.0000	9.830
39 trans-1,3-Dichloropropene	75	18.225	18.225 (0.910)		111563	10.0000	8.924
40 1,1,2-Trichloroethane	97	18.501	18.501 (0.924)		91846	10.0000	9.848
41 Tetrachloroethene	164	18.560	18.560 (0.927)		109646	10.0000	10.595
42 Dibromochloromethane	129	19.094	19.094 (0.954)		186706	10.0000	10.036
72 1,2-Dibromoethane	107	19.281	19.281 (0.963)		144518	10.0000	9.761(a)
43 2-Hexanone	43	18.896	18.896 (0.944)		44646	10.0000	7.400(a)
44 Chlorobenzene	112	20.061	20.061 (1.002)		207125	10.0000	10.285
45 Ethylbenzene	106	20.200	20.200 (1.009)		83347	10.0000	9.827
46 m & p-Xylene	106	20.417	20.417 (1.020)		214014	20.0000	19.758
47 o-Xylene	106	21.098	21.098 (1.054)		100723	10.0000	9.656
73 Isopropylbenzene	105	21.721	21.721 (1.085)		308063	10.0000	9.739(a)
M 48 Xylenes (Total)	106				314737	10.0000	30.172
49 Styrene	104	21.158	21.158 (1.057)		154220	10.0000	9.060
50 Bromoform	173	21.493	21.493 (1.073)		147604	10.0000	9.711
51 1,1,2,2-Tetrachloroethane	83	22.392	22.392 (1.118)		159548	10.0000	9.441
52 1,3-Dichlorobenzene	146	23.982	23.982 (1.198)		145631	10.0000	8.286(a)
53 1,4-Dichlorobenzene	146	24.160	24.160 (1.207)		175154	10.0000	9.000(a)
54 1,2-Dichlorobenzene	146	24.822	24.822 (1.240)		163381	10.0000	9.207(a)
74 1,2-Dibromo-3-Chloropropane	75	26.046	26.046 (1.301)		34022	10.0000	7.623(a)
75 1,2,4-Trichlorobenzene	180	27.044	27.044 (1.351)		114113	10.0000	8.376(a)

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ) .

Data File: \\LILAN04\chem\MSV0A\5972H.i\H0306030.b\H030609.D  
Date : 06-MAR-2003 12:04

Client ID: VSTI20

Sample Info: VSTI20 H030601

Purge Volume: 5.0

Column Phase: RIX-624

Page 4

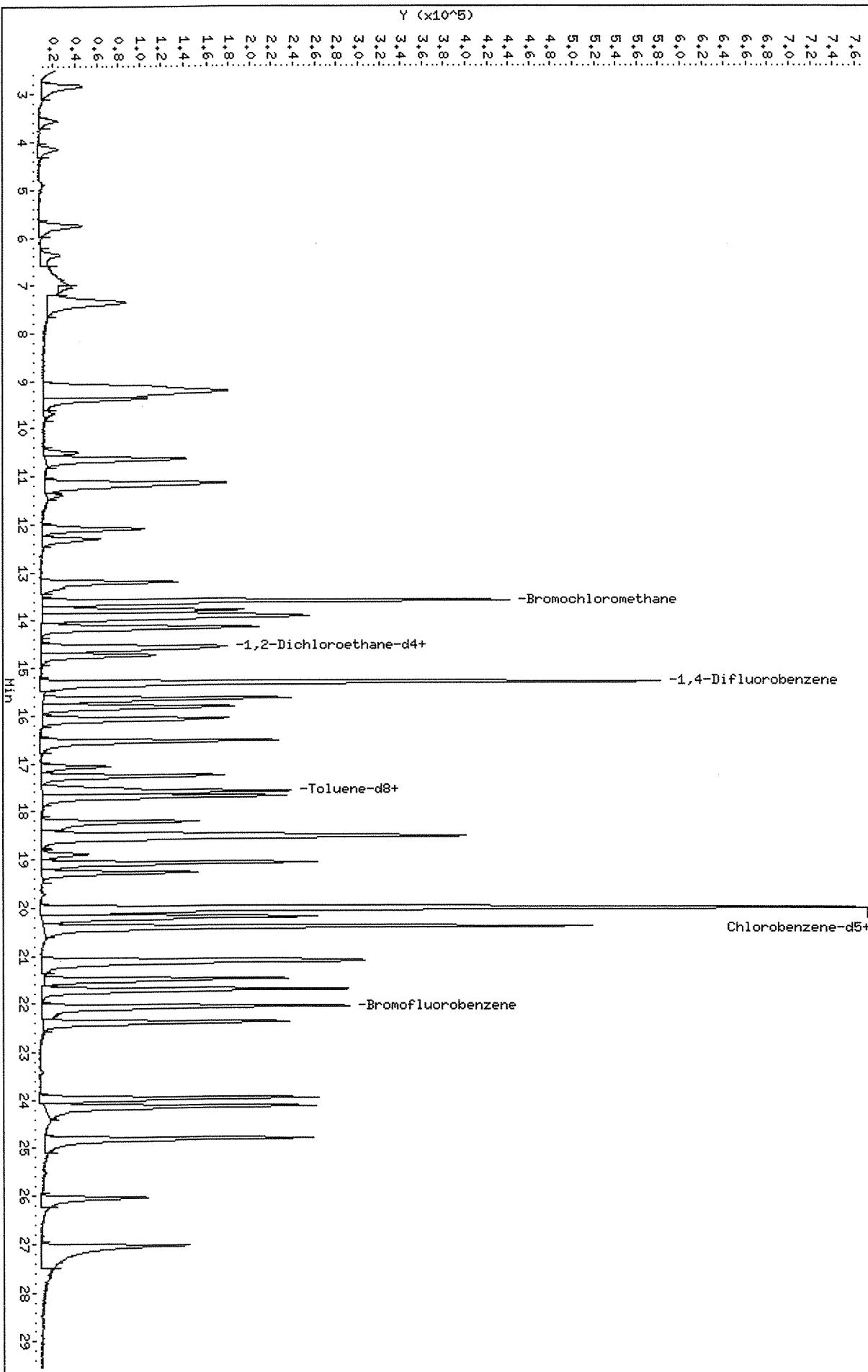
106

Instrument: 5972H.i

Operator: MFS

Column diameter: 0.53

\\LILAN04\chem\MSV0A\5972H.i\H0306030.b\H030609.D



Lionville Laboratory, Inc.

Data file : \\LILAN04\chem\MSVOA\5972H.i\H030603o.b\H030609.D  
Lab Smp Id: VSTD20 Client Smp ID: VSTD20  
Inj Date : 06-MAR-2003 12:04  
Operator : MFS Inst ID: 5972h.i  
Smp Info : VSTD20 H030601  
Misc Info : DIL,1,DF8260 ICAL  
Comment :  
Method : \\LILAN04\chem\MSVOA\5972H.i\H030603o.b\Olm4.1w.m  
Meth Date : 11-Mar-2003 08:57 schneidm Quant Type: ISTD  
Cal Date : 06-MAR-2003 12:04 Cal File: H030609.D  
Als bottle: 10 Calibration Sample, Level: 2  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: all.sub  
Target Version: 4.00  
Processing Host: MSVOA2

Concentration Formula: Amt \* DF \* Uf/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)

Compounds	QUANT SIG	AMOUNTS						
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT	ON-COL
		====	==	=====	=====	=====	=====	=====
* 1 Bromochloromethane		128	13.606	13.606 (1.000)		266666	50.0000	
* 2 1,4-Difluorobenzene		114	15.324	15.324 (1.000)		1084174	50.0000	
* 3 Chlorobenzene-d5		117	20.015	20.015 (1.000)		900126	50.0000	
\$ 4 1,2-Dichloroethane-d4		65	14.613	14.613 (0.954)		193213	20.0000	18.688
\$ 5 Toluene-d8		98	17.595	17.595 (0.879)		351109	20.0000	19.231
\$ 6 Bromofluorobenzene		95	22.069	22.069 (1.103)		269529	20.0000	18.384
68 Dichlorodifluoromethane		85	2.841	2.841 (0.209)		217125	20.0000	18.778
7 Chloromethane		50	3.542	3.542 (0.260)		81412	20.0000	19.210
8 Vinyl Chloride		62	4.145	4.145 (0.305)		90609	20.0000	18.914
9 Bromomethane		94	5.764	5.764 (0.424)		123915	20.0000	20.033
10 Chlorethane		64	6.367	6.367 (0.468)		65087	20.0000	19.772
11 Trichlorofluoromethane		101	7.354	7.354 (0.541)		309231	20.0000	19.385
13 Acrolein		56	9.201	9.201 (0.676)		12200	20.0000	20.119(a)
14 1,1-Dichloroethene		96	9.112	9.112 (0.670)		119527	20.0000	18.946
65 Freon-113		151	9.231	9.231 (0.678)		221221	20.0000	19.702
15 Carbon Disulfide		76	9.379	9.379 (0.689)		331337	20.0000	19.176
66 Iodomethane		142	Compound Not Detected.					

Compounds	QUANT SIG	AMOUNTS						
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT ( ug/L)	ON-COL ( ug/L)
16 Acetone	43	9.685	9.685	(0.712)		41816	20.0000	22.552
17 Methylene Chloride	84	10.643	10.643	(0.782)		152842	20.0000	17.996
64 Acetonitrile	41	10.514	10.514	(0.773)		17185	40.0000	47.002(M)
69 Methyl Acetate	43	10.495	10.495	(0.771)		121752	20.0000	20.477
M 18 1,2-Dichloroethene (Total)	96					261953	40.0000	38.372
19 trans-1,2-Dichloroethene	96	11.137	11.137	(0.819)		125192	20.0000	19.301
20 Methyl-T-Butylether	73	11.196	11.196	(0.823)		266959	20.0000	19.525
21 Acrylonitrile	53	11.393	11.393	(0.837)		30760	20.0000	21.828(a)
23 1,1-Dichloroethane	63	12.085	12.085	(0.888)		257806	20.0000	19.224
24 Vinyl Acetate	43	12.302	12.302	(0.904)		255916	20.0000	19.620
25 cis-1,2-Dichloroethene	96	13.201	13.201	(0.970)		136761	20.0000	19.082
26 2-Butanone	43	13.319	13.319	(0.979)		63806	20.0000	20.429
27 Chloroform	83	13.793	13.793	(1.014)		334211	20.0000	19.295
70 Cyclohexane	56	13.892	13.892	(0.907)		162197	20.0000	18.473
28 1,1,1-Trichloroethane	97	13.941	13.941	(1.025)		315008	20.0000	19.544
29 Carbon Tetrachloride	117	14.149	14.149	(1.040)		321923	20.0000	19.749
30 Benzene	78	14.554	14.554	(0.950)		325880	20.0000	19.006
31 1,2-Dichloroethane	62	14.741	14.741	(0.962)		213432	20.0000	19.245
32 Trichloroethene	130	15.650	15.650	(1.021)		184496	20.0000	19.613
71 Methylcyclohexane	83	15.828	15.828	(1.033)		170553	20.0000	19.040
33 1,2-Dichloropropane	63	16.075	16.075	(1.049)		146422	20.0000	19.303
34 Bromodichloromethane	83	16.539	16.539	(1.079)		351957	20.0000	19.839
35 2-Chloroethylvinylether	63	17.062	17.062	(1.113)		69364	40.0000	33.939
36 cis-1,3-Dichloropropene	75	17.270	17.270	(0.863)		220996	20.0000	18.647
37 4-Methyl-2-Pentanone	43	17.516	17.516	(0.875)		176602	20.0000	20.466
38 Toluene	91	17.704	17.704	(0.885)		401390	20.0000	19.320
39 trans-1,3-Dichloropropene	75	18.218	18.218	(0.910)		191354	20.0000	18.279
40 1,1,2-Trichloroethane	97	18.504	18.504	(0.925)		158162	20.0000	19.763
41 Tetrachloroethene	164	18.553	18.553	(0.927)		180522	20.0000	20.171
42 Dibromochloromethane	129	19.087	19.087	(0.954)		323714	20.0000	20.149
72 1,2-Dibromoethane	107	19.284	19.284	(0.963)		258390	20.0000	20.178
43 2-Hexanone	43	18.899	18.899	(0.944)		108226	20.0000	20.596
44 Chlorobenzene	112	20.064	20.064	(1.002)		350724	20.0000	20.146
45 Ethylbenzene	106	20.213	20.213	(1.010)		141376	20.0000	19.493
46 m & p-Xylene	106	20.420	20.420	(1.020)		363877	40.0000	39.212
47 o-Xylene	106	21.101	21.101	(1.054)		173062	20.0000	19.424
73 Isopropylbenzene	105	21.714	21.714	(1.085)		529613	20.0000	19.559
M 48 Xylenes (Total)	106					536939	20.0000	60.263
49 Styrene	104	21.151	21.151	(1.057)		271433	20.0000	18.847
50 Bromoform	173	21.496	21.496	(1.074)		270968	20.0000	20.516
51 1,1,2,2-Tetrachloroethane	83	22.385	22.385	(1.118)		308759	20.0000	20.877
52 1,3-Dichlorobenzene	146	23.975	23.975	(1.198)		282133	20.0000	18.944
53 1,4-Dichlorobenzene	146	24.153	24.153	(1.207)		322986	20.0000	19.428
54 1,2-Dichlorobenzene	146	24.815	24.815	(1.240)		297843	20.0000	19.595
74 1,2-Dibromo-3-Chloropropane	75	26.039	26.039	(1.301)		90277	20.0000	22.486
75 1,2,4-Trichlorobenzene	180	27.037	27.037	(1.351)		214352	20.0000	18.655

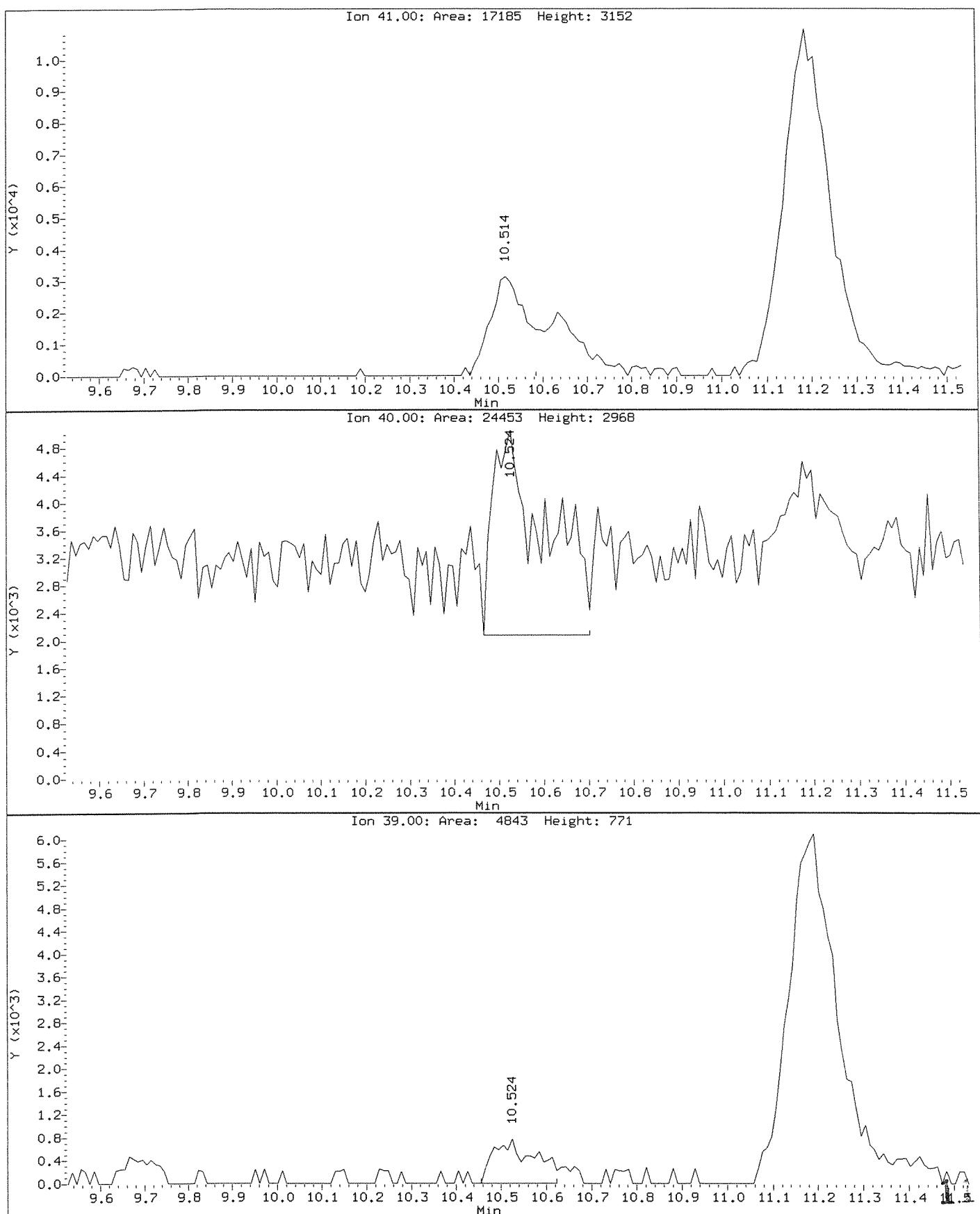
R  
3/18/03

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).  
M - Compound response manually integrated.

Data File: \\LILAN04\0\chem\MSVDA\5972H.i\H030603o.b\H030609.D  
Injection Date: 06-MAR-2003 12:04  
Instrument: 5972h.i  
Client Sample ID: VSTD20

Compound: Acetonitrile  
CAS Number: 75-05-8



Date : 06-MAR-2003 08:55

Client ID: VSTD50

Sample Info: VSTD50 H030601

Purge Volume: 5.0

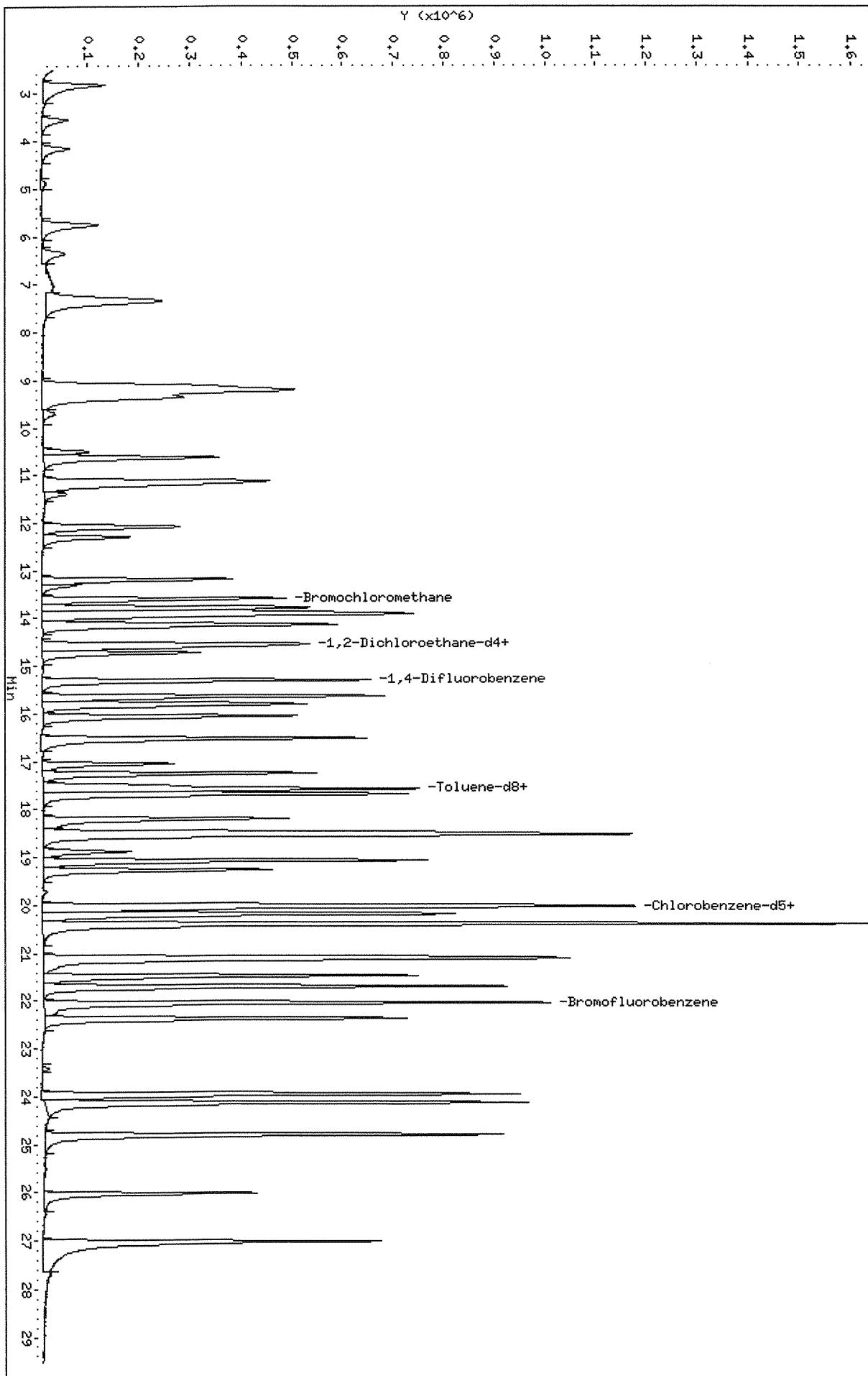
Column Phase: RTK-624

Instrument: 5972n.i

Operator: HFS

Column diameter: 0.53

\\LILAN04\chem\HSV0A\5972H.i\H0306030.b\H030604.D



Lionville Laboratory, Inc.

Data file : \\LILAN04\chem\MSVOA\5972H.i\H030603o.b\H030604.D  
Lab Smp Id: VSTD50 Client Smp ID: VSTD50  
Inj Date : 06-MAR-2003 08:55  
Operator : MFS Inst ID: 5972h.i  
Smp Info : VSTD50 H030601  
Misc Info : DIL,1,DF8260 ICAL  
Comment :  
Method : \\LILAN04\chem\MSVOA\5972H.i\H030603o.b\Olm4.1w.m  
Meth Date : 11-Mar-2003 08:57 schneidm Quant Type: ISTD  
Cal Date : 06-MAR-2003 08:55 Cal File: H030604.D  
Als bottle: 4 Calibration Sample, Level: 3  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: all.sub  
Target Version: 4.00  
Processing Host: MSVOA2

Concentration Formula: Amt \* DF \* Uf/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
VO	5.000	Sample Volume purged (mL)

Compounds	QUANT SIG	AMOUNTS						
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT	ON-COL
		====	==	=====	=====	=====	=====	=====
* 1 Bromochloromethane		128	13.613	13.613 (1.000)		293536	50.0000	
* 2 1,4-Difluorobenzene		114	15.321	15.321 (1.000)		1214812	50.0000	
* 3 Chlorobenzene-d5		117	20.022	20.022 (1.000)		1025595	50.0000	
\$ 4 1,2-Dichloroethane-d4		65	14.610	14.610 (0.954)		571375	50.0000	50.165
\$ 5 Toluene-d8		98	17.593	17.593 (0.879)		1091708	50.0000	51.964
\$ 6 Bromofluorobenzene		95	22.066	22.066 (1.102)		892544	50.0000	52.707
68 Dichlorodifluoromethane		85	2.828	2.828 (0.208)		666027	50.0000	51.845
7 Chloromethane		50	3.559	3.559 (0.261)		234369	50.0000	50.192
8 Vinyl Chloride		62	4.162	4.162 (0.306)		270849	50.0000	51.083
9 Bromomethane		94	5.761	5.761 (0.423)		353635	50.0000	51.539
10 Chloroethane		64	6.364	6.364 (0.467)		180182	50.0000	49.780
11 Trichlorofluoromethane		101	7.351	7.351 (0.540)		961604	50.0000	53.740
13 Acrolein		56	9.208	9.208 (0.676)		33856	50.0000	50.576
14 1,1-Dichloroethene		96	9.109	9.109 (0.669)		365470	50.0000	52.079
65 Freon-113		151	9.238	9.238 (0.679)		659914	50.0000	52.676
15 Carbon Disulfide		76	9.376	9.376 (0.689)		960169	50.0000	50.385
66 Iodomethane		142	Compound Not Detected.					

Compounds	QUANT SIG	AMOUNTS					
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT ( ug/L)
16 Acetone	43	9.712	9.712 (0.713)		113469	50.0000	54.377
17 Methylene Chloride	84	10.640	10.640 (0.782)		408546	50.0000	44.829
64 Acetonitrile	41	10.531	10.531 (0.774)		43371	100.000	106.12(M)
69 Methyl Acetate	43	10.502	10.502 (0.771)		372527	50.0000	55.386
M 18 1,2-Dichloroethene (Total)	96				772004	100.000	102.18
19 trans-1,2-Dichloroethene	96	11.124	11.124 (0.817)		365378	50.0000	50.936
20 Methyl-T-Butylether	73	11.193	11.193 (0.822)		793962	50.0000	52.178
21 Acrylonitrile	53	11.401	11.401 (0.837)		85945	50.0000	54.232(H)
23 1,1-Dichloroethane	63	12.082	12.082 (0.888)		725478	50.0000	49.313
24 Vinyl Acetate	43	12.309	12.309 (0.904)		773437	50.0000	53.047
25 cis-1,2-Dichloroethene	96	13.198	13.198 (0.970)		406626	50.0000	51.226
26 2-Butanone	43	13.326	13.326 (0.979)		193566	50.0000	54.917
27 Chloroform	83	13.790	13.790 (1.013)		957025	50.0000	50.155
70 Cyclohexane	56	13.879	13.879 (0.906)		491764	50.0000	49.988
28 1,1,1-Trichloroethane	97	13.939	13.939 (1.024)		921028	50.0000	50.796
29 Carbon Tetrachloride	117	14.156	14.156 (1.040)		945351	50.0000	51.397
30 Benzene	78	14.551	14.551 (0.950)		993880	50.0000	51.376
31 1,2-Dichloroethane	62	14.729	14.729 (0.961)		611077	50.0000	50.046
32 Trichloroethene	130	15.647	15.647 (1.021)		535061	50.0000	50.609
71 Methylcyclohexane	83	15.825	15.825 (1.033)		509987	50.0000	50.646
33 1,2-Dichloropropane	63	16.072	16.072 (1.049)		418963	50.0000	49.434
34 Bromodichloromethane	83	16.536	16.536 (1.079)		1008868	50.0000	50.600
35 2-Chloroethylvinylether	63	17.059	17.059 (1.113)		278083	100.000	116.44
36 cis-1,3-Dichloropropene	75	17.267	17.267 (0.862)		669718	50.0000	50.344
37 4-Methyl-2-Pentanone	43	17.514	17.514 (0.875)		559616	50.0000	55.386
38 Toluene	91	17.701	17.701 (0.884)		1240241	50.0000	51.897
39 trans-1,3-Dichloropropene	75	18.215	18.215 (0.910)		606178	50.0000	51.333
40 1,1,2-Trichloroethane	97	18.501	18.501 (0.924)		477254	50.0000	52.544
41 Tetrachloroethene	164	18.551	18.551 (0.926)		526848	50.0000	51.324
42 Dibromochloromethane	129	19.084	19.084 (0.953)		966121	50.0000	52.891
72 1,2-Dibromoethane	107	19.281	19.281 (0.963)		781417	50.0000	52.805
43 2-Hexanone	43	18.886	18.886 (0.943)		364053	50.0000	58.286
44 Chlorobenzene	112	20.062	20.062 (1.002)		1044892	50.0000	52.120
45 Ethylbenzene	106	20.210	20.210 (1.009)		434644	50.0000	52.057
46 m & p-Xylene	106	20.417	20.417 (1.020)		1141276	100.000	106.25
47 o-Xylene	106	21.099	21.099 (1.054)		548167	50.0000	53.147
73 Isopropylbenzene	105	21.721	21.721 (1.085)		1662500	50.0000	53.061
M 48 Xylenes (Total)	106				1689443	50.0000	163.80
49 Styrene	104	21.148	21.148 (1.056)		908754	50.0000	54.213
50 Bromoform	173	21.494	21.494 (1.073)		849788	50.0000	55.766
51 1,1,2,2-Tetrachloroethane	83	22.382	22.382 (1.118)		940205	50.0000	54.531
52 1,3-Dichlorobenzene	146	23.972	23.972 (1.197)		968103	50.0000	55.486
53 1,4-Dichlorobenzene	146	24.150	24.150 (1.206)		1054694	50.0000	54.444
54 1,2-Dichlorobenzene	146	24.822	24.822 (1.240)		961635	50.0000	54.326
74 1,2-Dibromo-3-Chloropropane	75	26.036	26.036 (1.300)		268880	50.0000	56.784
75 1,2,4-Trichlorobenzene	180	27.034	27.034 (1.350)		715780	50.0000	53.670

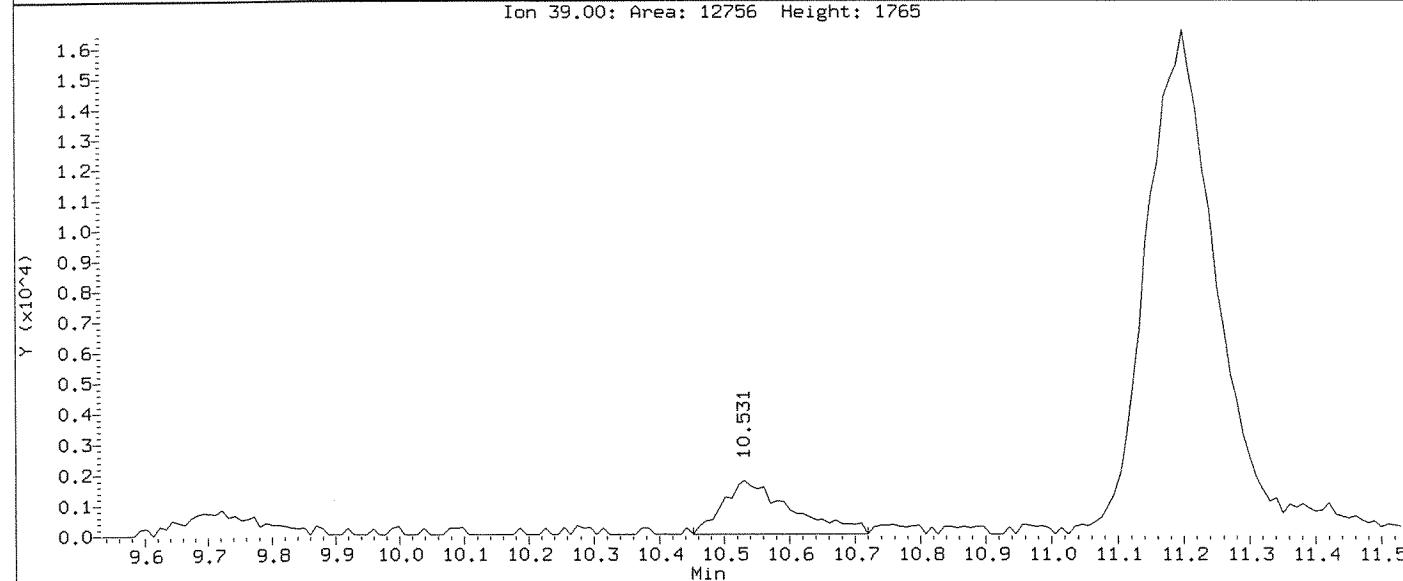
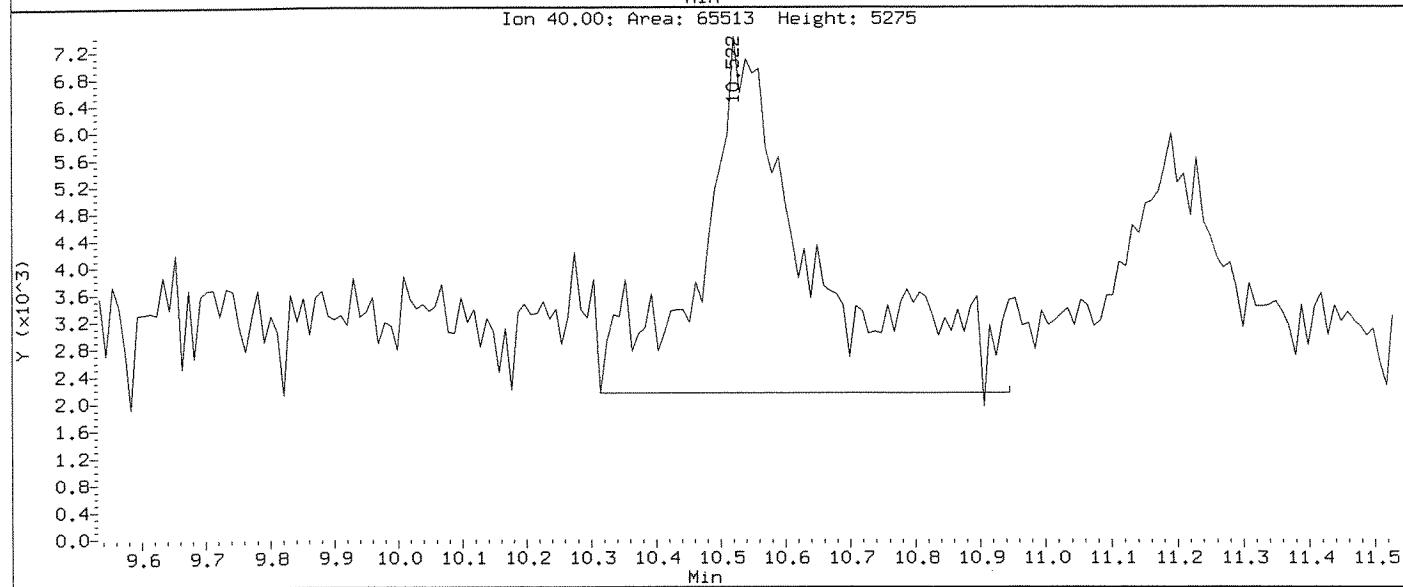
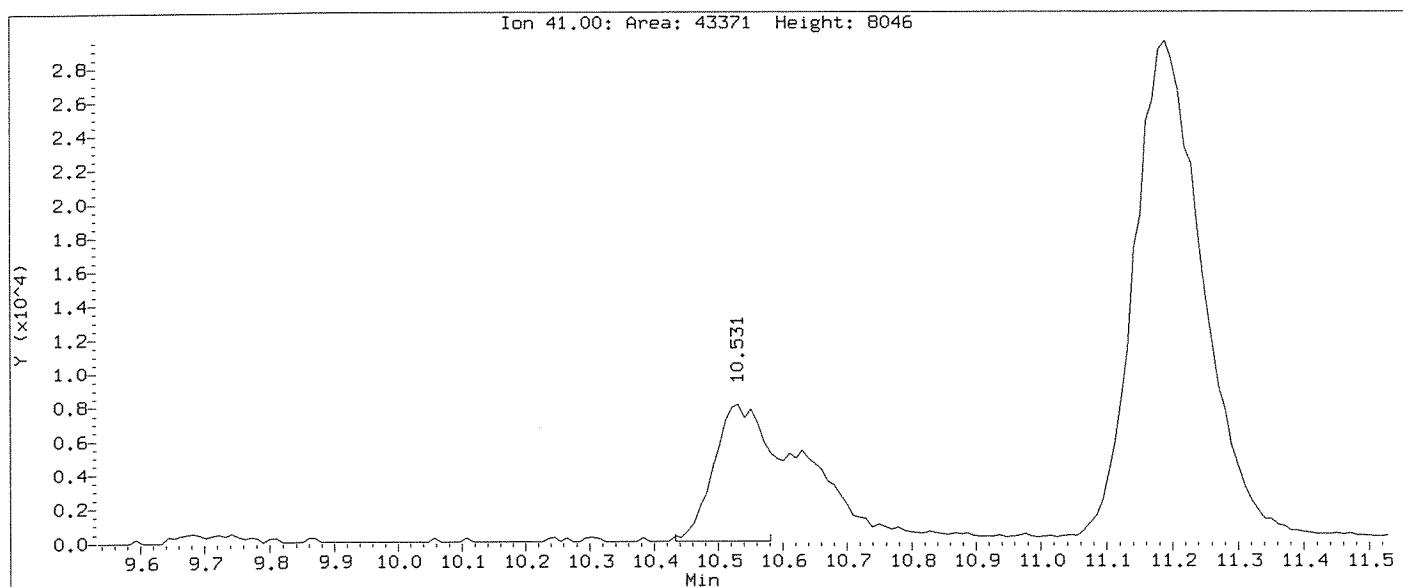
3/18/03

QC Flag Legend

M - Compound response manually integrated.  
H - Operator selected an alternate compound hit.

Data File: \\LILANO4\\chem\\MSVDA\\5972H.i\\H030603o.b\\H030604.D  
Injection Date: 06-MAR-2003 08:55  
Instrument: 5972h.i  
Client Sample ID: VSTD50

Compound: Acetonitrile  
CAS Number: 75-05-8



Date : 06-MAR-2003 08:16

Client ID: VSTD100

Sample Info: VSTD100 H030601

Purge Volume: 5.0

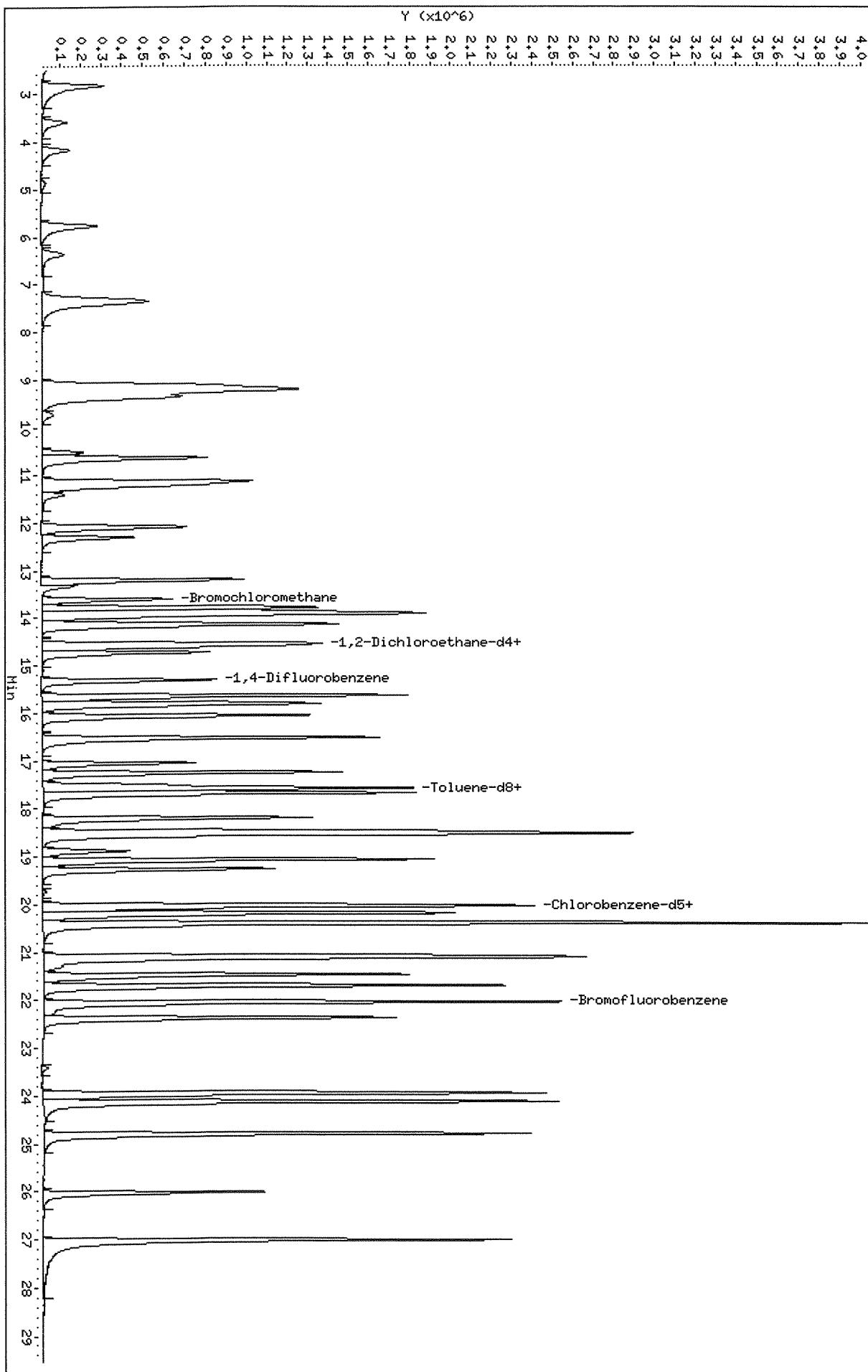
Column Phase: RTX-624

Instrument: 5972n.i

Operator: HFS

Column diameter: 0.53

\\LILANO4\chem\MSV0A\5972H.i\H0306030.b\H030603.D



Lionville Laboratory, Inc.

Data file : \\LILAN04\chem\MSVOA\5972H.i\H030603o.b\H030603.D  
Lab Smp Id: VSTD100 Client Smp ID: VSTD100  
Inj Date : 06-MAR-2003 08:16 Inst ID: 5972h.i  
Operator : MFS  
Smp Info : VSTD100 H030601  
Misc Info : DIL,1,DF8260 ICAL  
Comment :  
Method : \\LILAN04\chem\MSVOA\5972H.i\H030603o.b\Olm4.1w.m  
Meth Date : 11-Mar-2003 08:57 schneidm Quant Type: ISTD  
Cal Date : 06-MAR-2003 08:16 Cal File: H030603.D  
Als bottle: 3 Calibration Sample, Level: 4  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: all.sub  
Target Version: 4.00  
Processing Host: MSVOA2

Concentration Formula: Amt \* DF \* Uf/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)

Compounds	QUANT SIG	AMOUNTS						
		MASS	RT	EXP RT	REL RT	RESPONSE	( ug/L)	ON-COL
*	1 Bromochloromethane	128	13.613	13.613 (1.000)		386169	50.0000	
*	2 1,4-Difluorobenzene	114	15.321	15.321 (1.000)		1591466	50.0000	
*	3 Chlorobenzene-d5	117	20.022	20.022 (1.000)		1343892	50.0000	
\$	4 1,2-Dichloroethane-d4	65	14.610	14.610 (0.954)		1509549	100.000	96.505
\$	5 Toluene-d8	98	17.602	17.602 (0.879)		2712411	100.000	97.581
\$	6 Bromofluorobenzene	95	22.056	22.056 (1.102)		2322382	100.000	97.987
68	Dichlorodifluoromethane	85	2.828	2.828 (0.208)		1638740	100.000	100.82
7	Chloromethane	50	3.589	3.589 (0.264)		592276	100.000	99.284
8	Vinyl Chloride	62	4.161	4.161 (0.306)		677365	100.000	98.113
9	Bromomethane	94	5.771	5.771 (0.424)		858076	100.000	100.42
10	Chloroethane	64	6.364	6.364 (0.467)		443351	100.000	96.208
11	Trichlorofluoromethane	101	7.361	7.361 (0.541)		2266537	100.000	98.873
13	Acrolein	56	9.218	9.218 (0.677)		84021	100.000	95.806
14	1,1-Dichloroethene	96	9.119	9.119 (0.670)		914308	100.000	98.389
65	Freon-113	151	9.228	9.228 (0.678)		1593794	100.000	99.880
15	Carbon Disulfide	76	9.386	9.386 (0.689)		2443064	100.000	96.829
66	Iodomethane	142	Compound Not Detected.					

Compounds	QUANT SIG	AMOUNTS						
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
16 Acetone	43	9.731	9.731 (0.715)	262000	100.000	99.432		
17 Methylene Chloride	84	10.650	10.650 (0.782)	940756	100.000	97.732		
64 Acetonitrile	41	10.541	10.541 (0.774)	94402	200.000	206.44 (M)		
69 Methyl Acetate	43	10.512	10.512 (0.772)	834632	100.000	95.528		
M 18 1,2-Dichloroethene (Total)	96				1953995	200.000	194.63	
19 trans-1,2-Dichloroethene	96	11.134	11.134 (0.818)	922517	100.000	97.390		
20 Methyl-T-Butylether	73	11.213	11.213 (0.824)	1989165	100.000	97.474		
21 Acrylonitrile	53	11.400	11.400 (0.837)	200914	100.000	98.915 (H)		
23 1,1-Dichloroethane	63	12.092	12.092 (0.888)	1875945	100.000	94.963		
24 Vinyl Acetate	43	12.309	12.309 (0.904)	1959782	100.000	99.024		
25 cis-1,2-Dichloroethene	96	13.208	13.208 (0.970)	1031478	100.000	97.248		
26 2-Butanone	43	13.336	13.336 (0.980)	452972	100.000	98.133		
27 Chloroform	83	13.790	13.790 (1.013)	2441864	100.000	96.716		
70 Cyclohexane	56	13.889	13.889 (0.907)	1276250	100.000	93.514		
28 1,1,1-Trichloroethane	97	13.948	13.948 (1.025)	2349986	100.000	98.556		
29 Carbon Tetrachloride	117	14.156	14.156 (1.040)	2339931	100.000	98.586		
30 Benzene	78	14.551	14.551 (0.950)	2546625	100.000	97.917		
31 1,2-Dichloroethane	62	14.738	14.738 (0.962)	1561504	100.000	94.620		
32 Trichloroethene	130	15.657	15.657 (1.022)	1365411	100.000	99.001		
71 Methylcyclohexane	83	15.825	15.825 (1.033)	1315135	100.000	97.452		
33 1,2-Dichloropropane	63	16.081	16.081 (1.050)	1082660	100.000	95.615		
34 Bromodichloromethane	83	16.546	16.546 (1.080)	2558399	100.000	98.537		
35 2-Chloroethylvinylether	63	17.059	17.059 (1.113)	768215	200.000	216.10 (A)		
36 cis-1,3-Dichloropropene	75	17.267	17.267 (0.862)	1799270	100.000	97.437		
37 4-Methyl-2-Pentanone	43	17.523	17.523 (0.875)	1344702	100.000	98.471		
38 Toluene	91	17.701	17.701 (0.884)	3116112	100.000	98.499		
39 trans-1,3-Dichloropropene	75	18.215	18.215 (0.910)	1615297	100.000	96.969		
40 1,1,2-Trichloroethane	97	18.501	18.501 (0.924)	1185808	100.000	99.783		
41 Tetrachloroethene	164	18.550	18.550 (0.926)	1305340	100.000	100.98		
42 Dibromochloromethane	129	19.094	19.094 (0.954)	2388227	100.000	101.70		
72 1,2-Dibromoethane	107	19.271	19.271 (0.963)	1939206	100.000	100.53		
43 2-Hexanone	43	18.886	18.886 (0.943)	866113	100.000	98.677		
44 Chlorobenzene	112	20.061	20.061 (1.002)	2559121	100.000	100.13		
45 Ethylbenzene	106	20.210	20.210 (1.009)	1101925	100.000	100.05		
46 m & p-Xylene	106	20.417	20.417 (1.020)	2801359	200.000	199.67		
47 o-Xylene	106	21.098	21.098 (1.054)	1360693	100.000	99.600		
73 Isopropylbenzene	105	21.721	21.721 (1.085)	4122070	100.000	99.915		
M 48 Xylenes (Total)	106				4162052	100.000	304.65	
49 Styrene	104	21.148	21.148 (1.056)	2283165	100.000	99.502		
50 Bromoform	173	21.493	21.493 (1.073)	2020491	100.000	103.62		
51 1,1,2,2-Tetrachloroethane	83	22.382	22.382 (1.118)	2255686	100.000	100.85		
52 1,3-Dichlorobenzene	146	23.972	23.972 (1.197)	2469720	100.000	100.53		
53 1,4-Dichlorobenzene	146	24.150	24.150 (1.206)	2669891	100.000	101.48		
54 1,2-Dichlorobenzene	146	24.812	24.812 (1.239)	2416848	100.000	101.75		
74 1,2-Dibromo-3-Chloropropane	75	26.036	26.036 (1.300)	650199	100.000	101.14		
75 1,2,4-Trichlorobenzene	180	27.034	27.034 (1.350)	1912066	100.000	100.83		

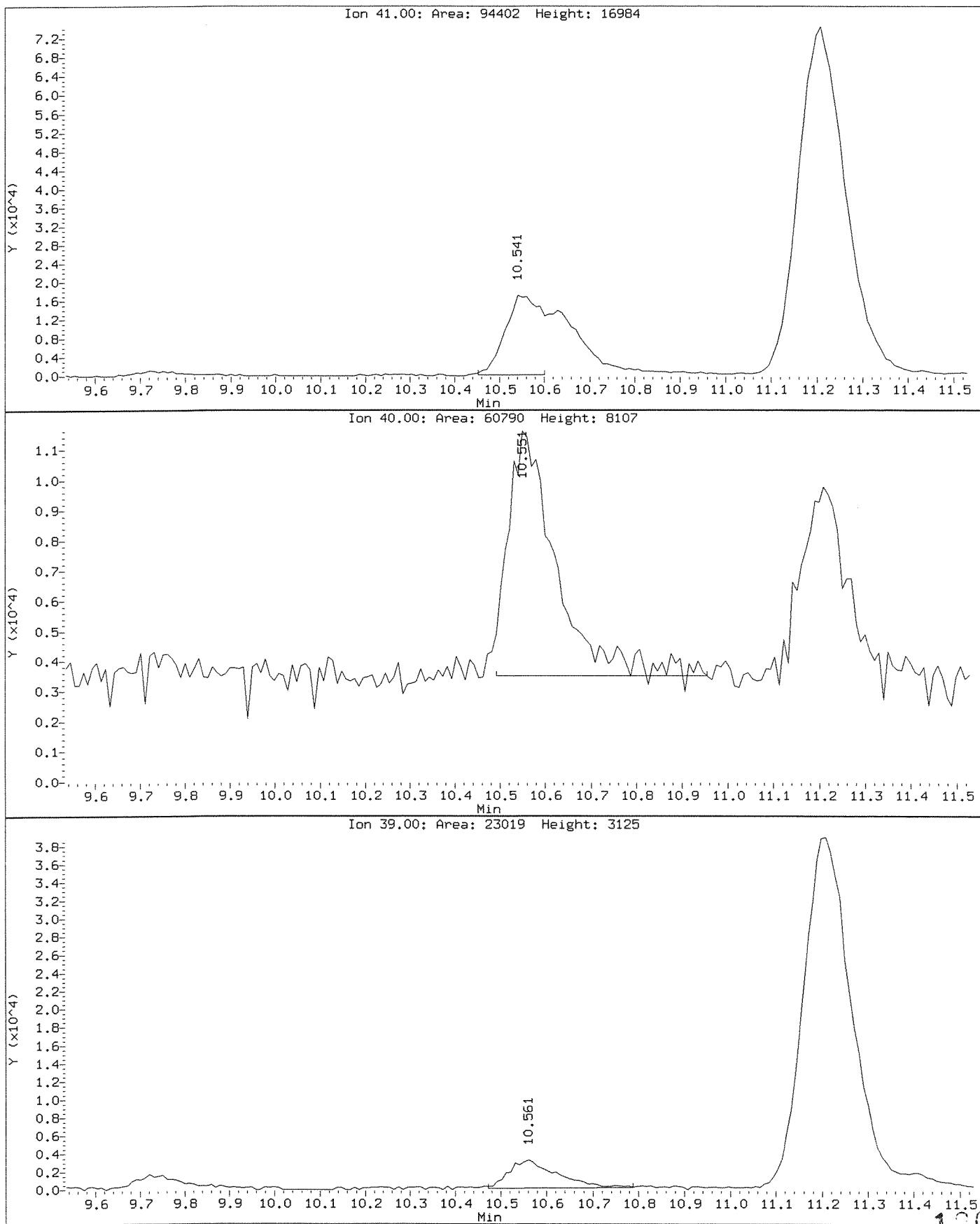
B  
3/18/07

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.  
M - Compound response manually integrated.  
H - Operator selected an alternate compound hit.

Data File: \\LILAN04\\chem\\MSVDA\\5972H.i\\H030603o.b\\H030603.D  
Injection Date: 06-MAR-2003 08:16  
Instrument: 5972H.i  
Client Sample ID: VSTD100

Compound: Acetonitrile  
CAS Number: 75-05-8



Data File: \\LILAH04\\chem\\MSVDA\\5972H.i\\H0306030.b\\H030602.D

Date : 06-MAR-2003 07:37

Client ID: VSTD200

Sample Info: VSTD200 H030601

Purge Volume: 5.0

Column Phase: RTX-624

Page 4

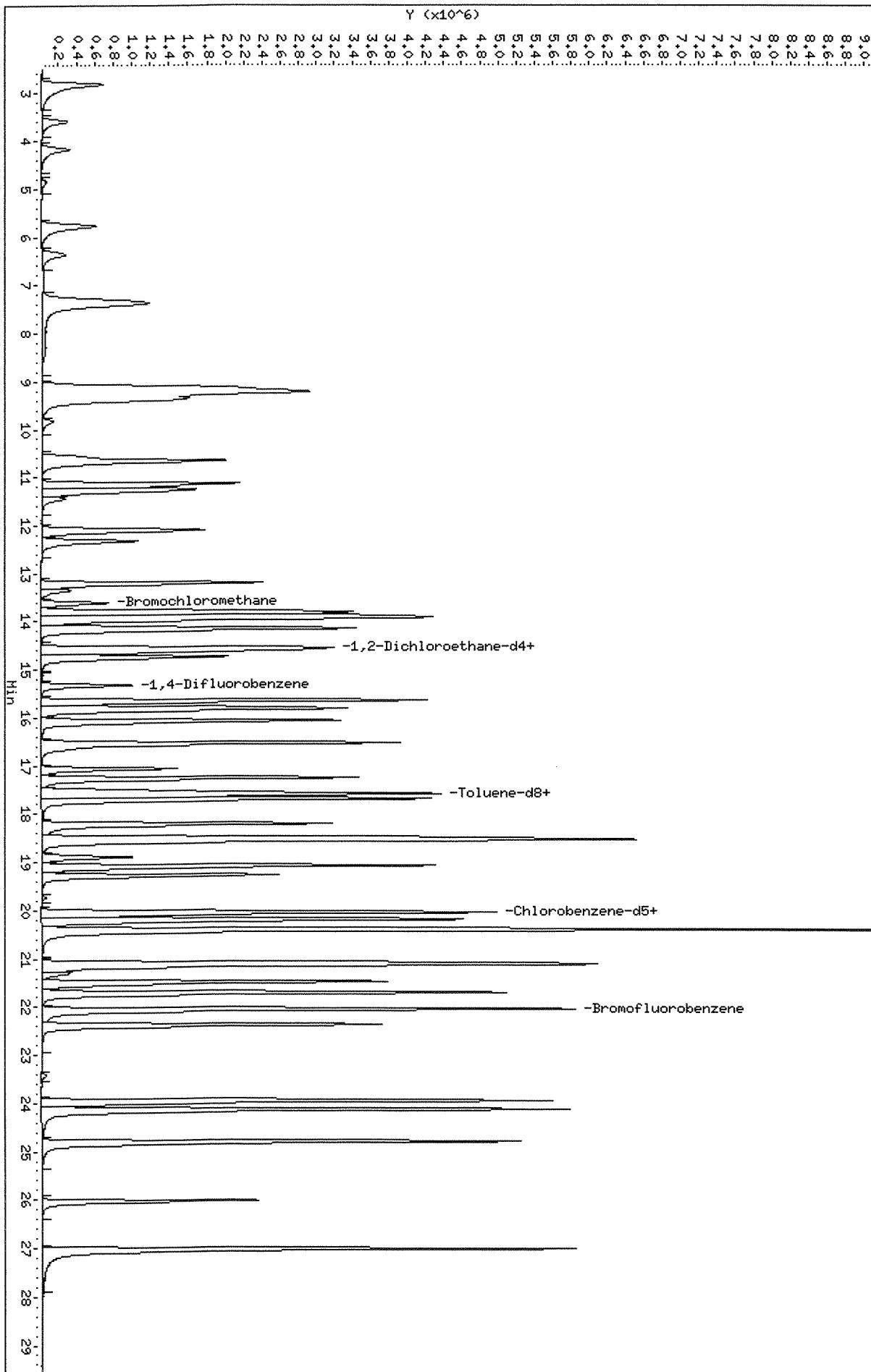
12

Instrument: 5972H.i

Operator: MFS

Column diameter: 0.53

\\LILAH04\\chem\\MSVDA\\5972H.i\\H0306030.b\\H030602.D



Lionville Laboratory, Inc.

Data file : \\LILAN04\chem\MSVOA\5972H.i\H030603o.b\H030602.D  
Lab Smp Id: VSTD200 Client Smp ID: VSTD200  
Inj Date : 06-MAR-2003 07:37  
Operator : MFS Inst ID: 5972h.i  
Smp Info : VSTD200 H030601  
Misc Info : DIL,1,DF8260 ICAL  
Comment :  
Method : \\LILAN04\chem\MSVOA\5972H.i\H030603o.b\Olm4.1w.m  
Meth Date : 11-Mar-2003 08:56 schneidm Quant Type: ISTD  
Cal Date : 06-MAR-2003 07:37 Cal File: H030602.D  
Als bottle: 2 Calibration Sample, Level: 5  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: all.sub  
Target Version: 4.00  
Processing Host: MSVOA2

Concentration Formula: Amt \* DF \* Uf/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)

Compounds	QUANT SIG	AMOUNTS						
		MASS	RT	EXP RT	REL RT	RESPONSE	( ug/L)	ON-COL ( ug/L)
* 1 Bromochloromethane	128	13.622	13.622	(1.000)	437779	50.0000		
* 2 1,4-Difluorobenzene	114	15.331	15.331	(1.000)	1825410	50.0000		
* 3 Chlorobenzene-d5	117	20.022	20.022	(1.000)	1513218	50.0000		
\$ 4 1,2-Dichloroethane-d4	65	14.620	14.620	(0.954)	3670492	200.000	200.00	
\$ 5 Toluene-d8	98	17.602	17.602	(0.879)	6411144	200.000	200.00	
\$ 6 Bromofluorobenzene	95	22.066	22.066	(1.102)	5444898	200.000	200.00	
68 Dichlorodifluoromethane	85	2.818	2.818	(0.207)	3654654	200.000	200.00	
7 Chloromethane	50	3.589	3.589	(0.263)	1362228	200.000	200.00(A)	
8 Vinyl Chloride	62	4.181	4.181	(0.307)	1594871	200.000	200.00	
9 Bromomethane	94	5.771	5.771	(0.424)	1929017	200.000	200.00	
10 Chlороethane	64	6.364	6.364	(0.467)	1084451	200.000	200.00(A)	
11 Trichlorofluoromethane	101	7.371	7.371	(0.541)	5256030	200.000	200.00	
13 Acrolein	56	9.257	9.257	(0.680)	207178	200.000	200.00(H)	
14 1,1-Dichloroethene	96	9.119	9.119	(0.669)	2140890	200.000	200.00	
65 Freon-113	151	9.238	9.238	(0.678)	3622276	200.000	200.00	
15 Carbon Disulfide	76	9.376	9.376	(0.688)	5901916	200.000	200.00	
66 Iodomethane	142	Compound Not Detected.						

Compounds	QUANT SIG	AMOUNTS					
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT ( ug/L)
16 Acetone	43	9.830	9.830	(0.722)	600818	200.000	200.00 (H)
17 Methylene Chloride	84	10.670	10.670	(0.783)	2231964	200.000	200.00
64 Acetonitrile	41	10.650	10.650	(0.782)	200677	400.000	400.00 (M)
69 Methyl Acetate	43	10.571	10.571	(0.776)	2069537	200.000	200.00
M 18 1,2-Dichloroethene (Total)	96				4674714	400.000	400.00
19 trans-1,2-Dichloroethene	96	11.144	11.144	(0.818)	2203718	200.000	200.00
20 Methyl-T-Butylether	73	11.272	11.272	(0.827)	4743747	200.000	200.00
21 Acrylonitrile	53	11.450	11.450	(0.841)	465523	200.000	200.00 (H)
23 1,1-Dichloroethane	63	12.102	12.102	(0.888)	4704502	200.000	200.00
24 Vinyl Acetate	43	12.329	12.329	(0.905)	4530962	200.000	200.00
25 cis-1,2-Dichloroethene	96	13.218	13.218	(0.970)	2470996	200.000	200.00
26 2-Butanone	43	13.366	13.366	(0.981)	1066105	200.000	200.00
27 Chloroform	83	13.810	13.810	(1.014)	5912424	200.000	200.00
70 Cyclohexane	56	13.889	13.889	(0.906)	3333810	200.000	200.00
28 1,1,1-Trichloroethane	97	13.948	13.948	(1.024)	5548819	200.000	200.00
29 Carbon Tetrachloride	117	14.156	14.156	(1.039)	5521713	200.000	200.00
30 Benzene	78	14.561	14.561	(0.950)	6090509	200.000	200.00
31 1,2-Dichloroethane	62	14.748	14.748	(0.962)	3943013	200.000	200.00
32 Trichloroethene	130	15.657	15.657	(1.021)	3195434	200.000	200.00
71 Methylcyclohexane	83	15.825	15.825	(1.032)	3174662	200.000	200.00
33 1,2-Dichloropropane	63	16.082	16.082	(1.049)	2711434	200.000	200.00 (A)
34 Bromodichloromethane	83	16.546	16.546	(1.079)	6043208	200.000	200.00
35 2-Chloroethylvinylether	63	17.069	17.069	(1.113)	1499644	400.000	400.00 (A)
36 cis-1,3-Dichloropropene	75	17.267	17.267	(0.862)	4344634	200.000	200.00 (A)
37 4-Methyl-2-Pentanone	43	17.533	17.533	(0.876)	3122295	200.000	200.00
38 Toluene	91	17.711	17.711	(0.885)	7231332	200.000	200.00
39 trans-1,3-Dichloropropene	75	18.215	18.215	(0.910)	3937132	200.000	200.00
40 1,1,2-Trichloroethane	97	18.501	18.501	(0.924)	2732055	200.000	200.00
41 Tetrachloroethene	164	18.560	18.560	(0.927)	2882844	200.000	200.00
42 Dibromochloromethane	129	19.094	19.094	(0.954)	5295462	200.000	200.00
72 1,2-Dibromoethane	107	19.281	19.281	(0.963)	4321138	200.000	200.00
43 2-Hexanone	43	18.896	18.896	(0.944)	2002797	200.000	200.00
44 Chlorobenzene	112	20.071	20.071	(1.002)	5748563	200.000	200.00
45 Ethylbenzene	106	20.210	20.210	(1.009)	2479208	200.000	200.00
46 m & p-Xylene	106	20.427	20.427	(1.020)	6329683	400.000	400.00
47 o-Xylene	106	21.098	21.098	(1.054)	3088898	200.000	200.00
73 Isopropylbenzene	105	21.721	21.721	(1.085)	9298651	200.000	200.00
M 48 Xylenes (Total)	106				9418581	200.000	609.83 (A)
49 Styrene	104	21.148	21.148	(1.056)	5193144	200.000	200.00
50 Bromoform	173	21.493	21.493	(1.073)	4310988	200.000	200.00
51 1,1,2,2-Tetrachloroethane	83	22.392	22.392	(1.118)	4994094	200.000	200.00
52 1,3-Dichlorobenzene	146	23.972	23.972	(1.197)	5502618	200.000	200.00
53 1,4-Dichlorobenzene	146	24.150	24.150	(1.206)	5837127	200.000	200.00
54 1,2-Dichlorobenzene	146	24.822	24.822	(1.240)	5255073	200.000	200.00
74 1,2-Dibromo-3-Chloropropane	75	26.026	26.026	(1.300)	1431233	200.000	200.00
75 1,2,4-Trichlorobenzene	180	27.034	27.034	(1.350)	4235302	200.000	200.00

R  
3/18/03

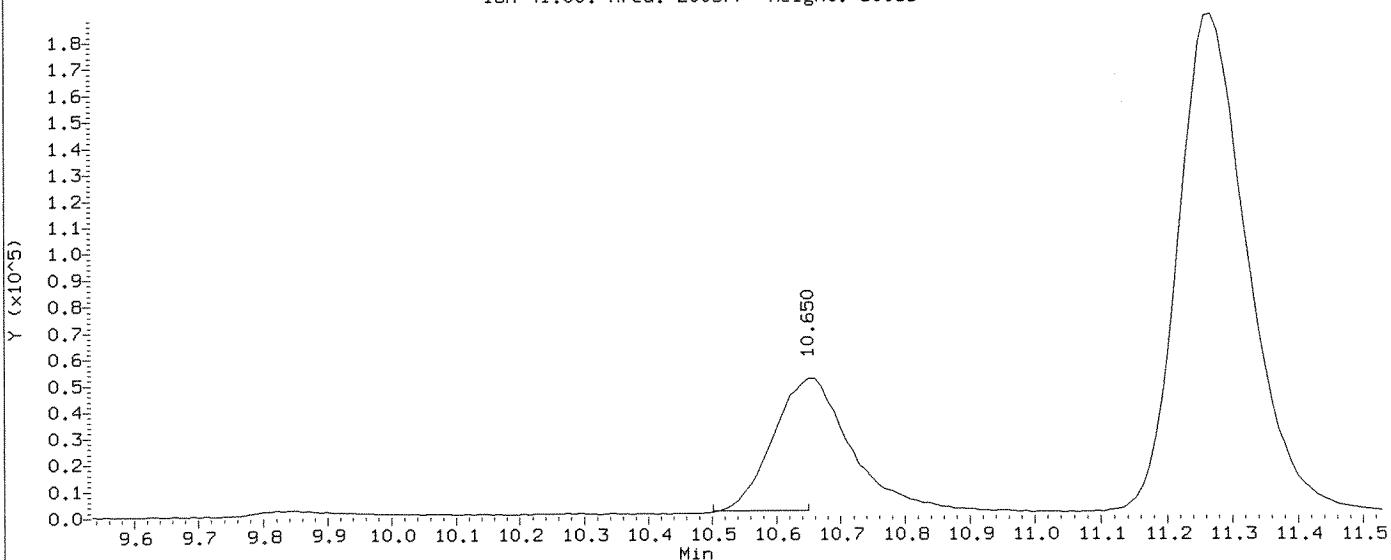
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.  
M - Compound response manually integrated.  
H - Operator selected an alternate compound hit.

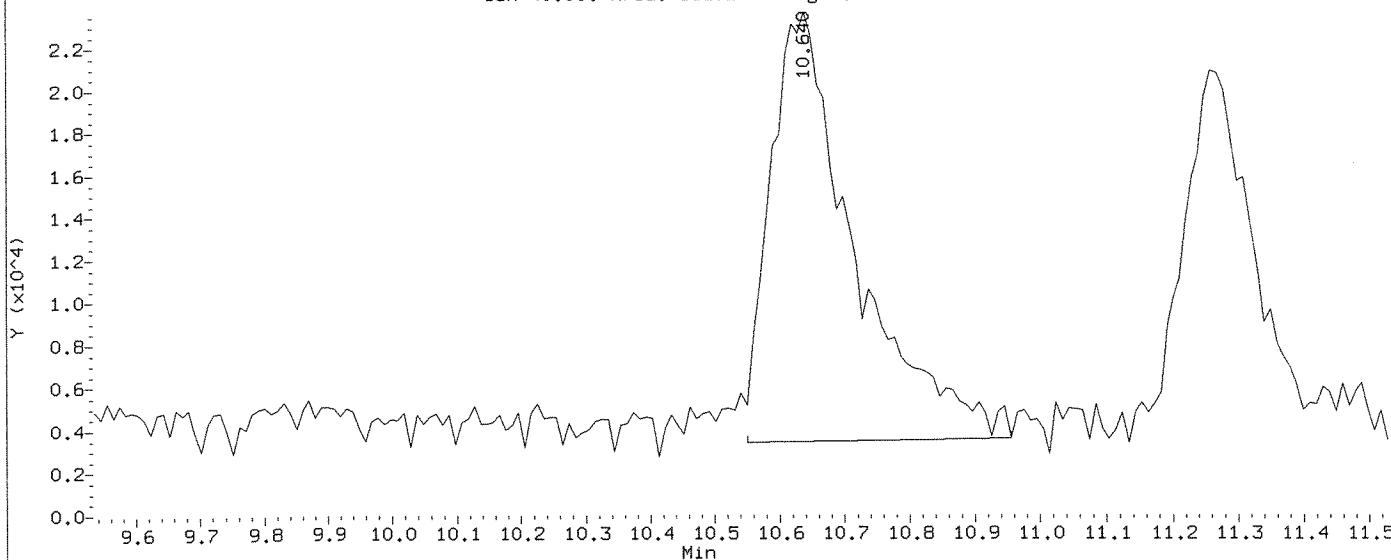
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Injection Date: 06-MAR-2003 07:37  
Instrument: 5972h.i  
Client Sample ID: VSTD200

Compound: Acetonitrile  
CAS Number: 75-05-8

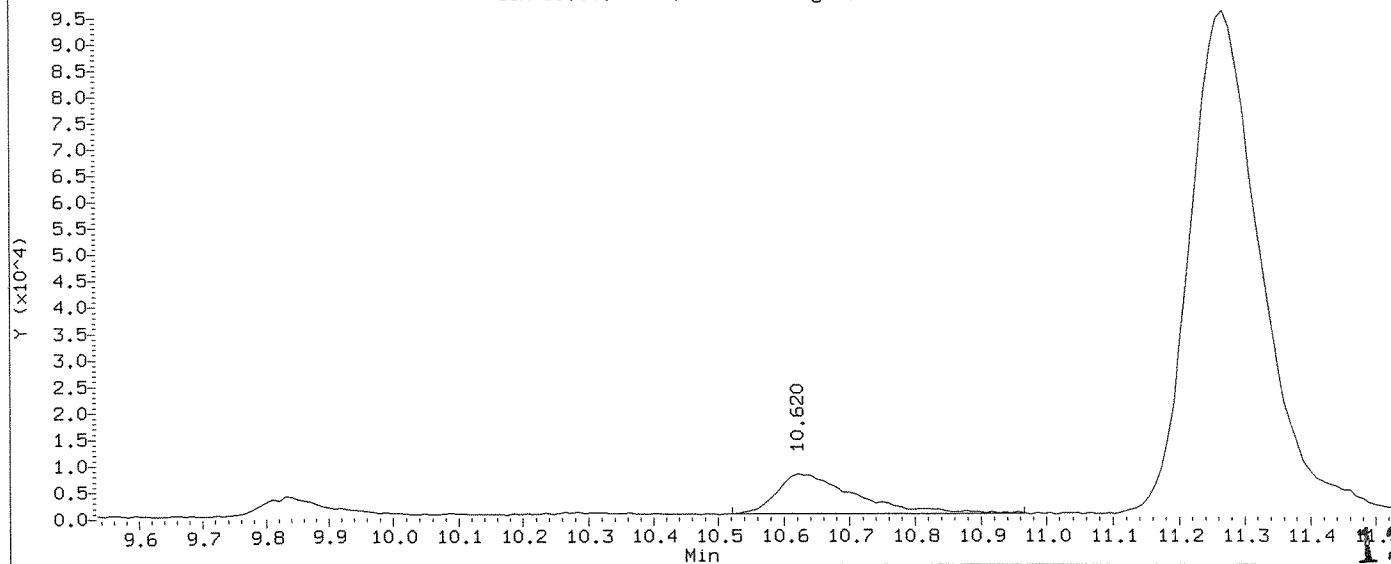
Ion 41.00: Area: 200677 Height: 50055



Ion 40.00: Area: 182024 Height: 20219



Ion 39.00: Area: 62199 Height: 7537



7A  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lionville Laboratory Inc. Contract: 01667-601-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 03L980

Instrument ID: 5972H Calibration Date: 03/24/3 Time: 0850

Lab File ID: H032403 Init. Calib. Date(s): 03/06/3 03/06/3

Heated Purge: (Y/N) Y Init. Calib. Times: 0737 1204

GC Column: RTX-624 ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.795	1.037	30.4		
Bromomethane	1.169	1.230	0.100	5.2	25.0
Vinyl Chloride	0.903	1.094	0.100	21.2	25.0
Chloroethane	0.616	0.682		10.7	
Trichlorofluoromethane	3.048	2.736		10.2	
Methylene Chloride	1.552	1.683		8.4	
Acetone	0.355	0.303		14.6	
Carbon Disulfide	3.246	3.730		14.9	
1,1-Dichloroethene	1.195	1.268	0.100	6.1	25.0
1,1-Dichloroethane	2.506	2.751	0.200	9.8	25.0
cis-1,2-Dichloroethene	1.352	1.388		2.7	
trans-1,2-Dichloroethene	1.222	1.341		9.7	
Chloroform	3.250	3.266	0.200	0.5	25.0
1,2-Dichloroethane	2.080	1.992	0.100	4.2	25.0
2-Butanone	0.600	0.553		7.8	
1,1,1-Trichloroethane	0.746	0.699	0.100	6.3	25.0
Carbon Tetrachloride	0.757	0.734	0.100	3.0	25.0
cis-1,3-Dichloropropene	0.547	0.571	0.200	4.4	25.0
Bromodichloromethane	0.821	0.812	0.200	1.1	25.0
1,2-Dichloropropane	0.349	0.384		10.0	
Trichloroethene	0.435	0.427	0.300	1.8	25.0
Dibromochloromethane	0.752	0.717	0.100	4.6	25.0
1,1,2-Trichloroethane	0.374	0.374	0.100	0.0	25.0
Benzene	0.796	0.848	0.500	6.5	25.0
trans-1,3-Dichloropropene	0.486	0.478	0.100	1.6	25.0
Bromoform	0.627	0.570	0.100	9.1	25.0
4-Methyl-2-Pentanone	0.493	0.440		10.8	
2-Hexanone	0.304	0.289		4.9	
Tetrachloroethene	0.500	0.475	0.200	5.0	25.0
1,1,2,2-Tetrachloroethane	0.841	0.839	0.300	0.2	25.0
Toluene	1.165	1.157	0.400	0.7	25.0
Chlorobenzene	0.977	0.980	0.500	0.3	25.0
Ethylbenzene	0.407	0.401	0.100	1.5	25.0
Styrene	0.817	0.811	0.300	0.7	25.0
o-Xylene	0.503	0.494	0.300	1.8	25.0
m & p-Xylene	0.523	0.515	0.300	1.5	25.0
Xylenes (Total)	0.503	0.494	0.300	1.8	25.0

All other compounds must meet a minimum RRF of 0.010.

7A  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lionville Laboratory Inc. Contract: 01667-601-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 03L980

Instrument ID: 5972H Calibration Date: 03/24/3 Time: 0850

Lab File ID: H032403 Init. Calib. Date(s): 03/06/3 03/06/3

Heated Purge: (Y/N) Y Init. Calib. Times: 0737 1204

GC Column: RTX-624 ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
1,2-Dichlorobenzene	0.863	0.844		2.2	
1,3-Dichlorobenzene	0.851	0.846		0.6	
1,4-Dichlorobenzene	0.944	0.933		1.2	
Freon-113	2.134	2.097		1.7	
Dichlorodifluoromethane	2.188	2.576		17.7	
Methyl-T-Butylether	2.592	2.674		3.2	
Methyl Acetate	1.146	1.192		4.0	
Cyclohexane	0.405	0.449		10.9	
Methylcyclohexane	0.414	0.441		6.5	
1,2-Dibromoethane	0.721	0.719		0.3	
Isopropylbenzene	1.528	1.480		3.1	
1,2-Dibromo-3-Chloropropane	0.231	0.233		0.9	
1,2,4-Trichlorobenzene	0.650	0.641	0.200	1.4	25.0
1,2-Dichloroethane-d4	1.940	1.792		7.6	
Toluene-d8	1.024	1.019		0.5	
Bromofluorobenzene	0.825	0.860	0.200	4.2	25.0

All other compounds must meet a minimum RRF of 0.010.

Date #: 24-MAR-2003 08:50

Client ID: VSTD50

Sample Info: VSTD50 H032401

Purge Volume: 5.0

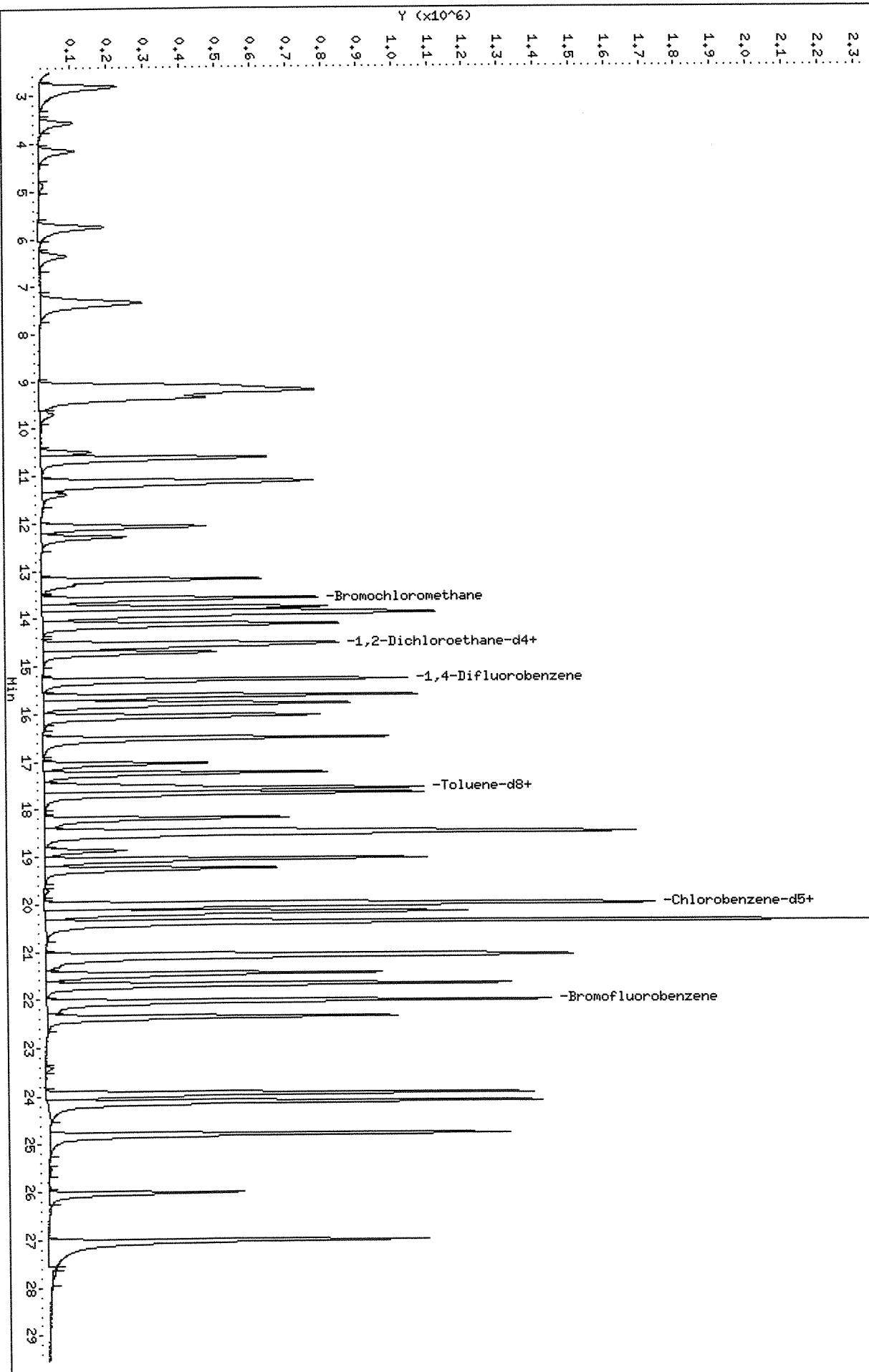
Column phase: RTX-624

Instrument: 5972h,i

Operator: HFS

Column diameter: 0.53

\\LILAN04\chem\HSVOA\5972H.i\H0324030.b\H032403.D



Lionville Laboratory, Inc.

Data file : \\LILAN04\Chem\MSVOA\5972H.i\H032403o.b\H032403.D  
Lab Smp Id: VSTD50 Client Smp ID: VSTD50  
Inj Date : 24-MAR-2003 08:50  
Operator : MFS Inst ID: 5972h.i  
Smp Info : VSTD50 H032401  
Misc Info : DIL,1,DF8260 CCL  
Comment :  
Method : \\LILAN04\Chem\MSVOA\5972H.i\H032403o.b\Olm4.1w.m  
Meth Date : 24-Mar-2003 10:57 schneidm Quant Type: ISTD  
Cal Date : 24-MAR-2003 08:50 Cal File: H032403.D  
Als bottle: 3 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: all.sub  
Target Version: 4.00  
Processing Host: MSVOA2

Concentration Formula: Amt \* DF \* Uf/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)

Compounds	QUANT SIG	AMOUNTS						
		MASS	RT	EXP RT	REL RT	RESPONSE	( ug/L)	( ug/L)
*	1 Bromochloromethane	128	13.605	13.605 (1.000)	479756	50.0000		
*	2 1,4-Difluorobenzene	114	15.314	15.314 (1.000)	1982969	50.0000		
*	3 Chlorobenzene-d5	117	20.015	20.015 (1.000)	1652141	50.0000		
\$	4 1,2-Dichloroethane-d4	65	14.603	14.603 (1.073)	859859	50.0000	46.190	
\$	5 Toluene-d8	98	17.585	17.585 (0.879)	1683888	50.0000	49.755	
\$	6 Bromofluorobenzene	95	22.059	22.059 (1.102)	1420926	50.0000	52.088	
68	Dichlorodifluoromethane	85	2.811	2.811 (0.207)	1235641	50.0000	58.851	
7	Chloromethane	50	3.552	3.552 (0.261)	497531	50.0000	65.192	
8	Vinyl Chloride	62	4.154	4.154 (0.305)	524812	50.0000	60.561	
9	Bromomethane	94	5.754	5.754 (0.423)	590307	50.0000	52.638	
10	Chloroethane	64	6.337	6.337 (0.466)	326974	50.0000	55.271	
11	Trichlorofluoromethane	101	7.354	7.354 (0.541)	1312897	50.0000	44.892	
13	Acrolein	56	9.191	9.191 (0.676)	48232	50.0000	44.085(a)	
14	1,1-Dichloroethene	96	9.102	9.102 (0.669)	608602	50.0000	53.062	
65	Freon-113	151	9.230	9.230 (0.678)	1005970	50.0000	49.131	
15	Carbon Disulfide	76	9.369	9.369 (0.689)	1789407	50.0000	57.451	
66	Iodomethane	142	Compound Not Detected.					

Compounds	QUANT SIG	AMOUNTS					
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT ( ug/L)
16 Acetone	43	9.694	9.694	(0.713)	145251	50.0000	42.589
17 Methylene Chloride	84	10.643	10.643	(0.782)	807646	50.0000	54.222
64 Acetonitrile	41	10.534	10.534	(0.774)	71636	100.000	107.24
69 Methyl Acetate	43	10.494	10.494	(0.771)	572057	50.0000	52.038
M 18 1,2-Dichloroethene (Total)	96				1309229	100.000	106.02
19 trans-1,2-Dichloroethene	96	11.127	11.127	(0.818)	643331	50.0000	54.873
20 Methyl-T-Butylether	73	11.186	11.186	(0.822)	1282751	50.0000	51.579
21 Acrylonitrile	53	11.393	11.393	(0.837)	148948	50.0000	57.506
23 1,1-Dichloroethane	63	12.084	12.084	(0.888)	1320047	50.0000	54.899
24 Vinyl Acetate	43	12.292	12.292	(0.903)	1059274	50.0000	44.451
25 cis-1,2-Dichloroethene	96	13.200	13.200	(0.970)	665897	50.0000	51.326
26 2-Butanone	43	13.329	13.329	(0.980)	265177	50.0000	46.032
27 Chloroform	83	13.783	13.783	(1.013)	1566834	50.0000	50.240
70 Cyclohexane	56	13.882	13.882	(0.906)	890567	50.0000	55.459
28 1,1,1-Trichloroethane	97	13.931	13.931	(0.910)	1387031	50.0000	46.863
29 Carbon Tetrachloride	117	14.149	14.149	(0.924)	1456529	50.0000	48.513
30 Benzene	78	14.544	14.544	(0.950)	1682515	50.0000	53.282
31 1,2-Dichloroethane	62	14.731	14.731	(1.083)	955436	50.0000	47.875
32 Trichloroethene	130	15.650	15.650	(1.022)	847166	50.0000	49.089
71 Methylcyclohexane	83	15.818	15.818	(1.033)	874517	50.0000	53.204
33 1,2-Dichloropropane	63	16.074	16.074	(1.050)	761225	50.0000	55.024
34 Bromodichloromethane	83	16.529	16.529	(1.079)	1610736	50.0000	49.492
35 2-Chloroethylvinylether	63	17.062	17.062	(1.114)	498176	100.000	127.79
36 cis-1,3-Dichloropropene	75	17.259	17.259	(1.127)	1132118	50.0000	52.136
37 4-Methyl-2-Pentanone	43	17.516	17.516	(0.875)	726947	50.0000	44.662
38 Toluene	91	17.694	17.694	(0.884)	1911034	50.0000	49.640
39 trans-1,3-Dichloropropene	75	18.207	18.207	(1.189)	948520	50.0000	49.208
40 1,1,2-Trichloroethane	97	18.494	18.494	(1.208)	742099	50.0000	50.053
41 Tetrachloroethene	164	18.543	18.543	(0.926)	784597	50.0000	47.447
42 Dibromochloromethane	129	19.086	19.086	(1.246)	1421979	50.0000	47.691
72 1,2-Dibromoethane	107	19.274	19.274	(0.963)	1188103	50.0000	49.840
43 2-Hexanone	43	18.879	18.879	(0.943)	477236	50.0000	47.430
44 Chlorobenzene	112	20.054	20.054	(1.002)	1618987	50.0000	50.130
45 Ethylbenzene	106	20.202	20.202	(1.009)	662336	50.0000	49.244
46 m & p-Xylene	106	20.410	20.410	(1.020)	1702846	100.000	98.413
47 o-Xylene	106	21.091	21.091	(1.054)	815976	50.0000	49.110
73 Isopropylbenzene	105	21.713	21.713	(1.085)	2445423	50.0000	48.450
M 48 Xylenes (Total)	106				2518822	50.0000	151.60
49 Styrene	104	21.141	21.141	(1.056)	1340007	50.0000	49.624
50 Bromoform	173	21.486	21.486	(1.403)	1129874	50.0000	45.424
51 1,1,2,2-Tetrachloroethane	83	22.385	22.385	(1.118)	1386670	50.0000	49.925
52 1,3-Dichlorobenzene	146	23.965	23.965	(1.197)	1397226	50.0000	49.711
53 1,4-Dichlorobenzene	146	24.143	24.143	(1.206)	1542008	50.0000	49.413
54 1,2-Dichlorobenzene	146	24.814	24.814	(1.240)	1394056	50.0000	48.888
74 1,2-Dibromo-3-Chloropropane	75	26.029	26.029	(1.300)	385720	50.0000	50.567
75 1,2,4-Trichlorobenzene	180	27.027	27.027	(1.350)	1058788	50.0000	49.282
76 Hexane	57	11.186	11.186	(0.822)	323392	50.0000	(a)

Compounds	QUANT SIG	AMOUNTS						
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT ( ug/L)	ON-COL ( ug/L)
		====	==	=====	=====	=====	=====	=====
77 1,2-Diethylbenzene	105	24.133	24.133 (1.774)		239	50.0000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

7A  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lionville Laboratory Inc. Contract: 01667-601-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 03L980

Instrument ID: 5972H Calibration Date: 03/25/3 Time: 0744

Lab File ID: H032502 Init. Calib. Date(s): 03/06/3 03/06/3

Heated Purge: (Y/N) Y Init. Calib. Times: 0737 1204

GC Column: RTX-624 ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.795	0.878		10.4	
Bromomethane	1.169	1.226	0.100	4.9	25.0
Vinyl Chloride	0.903	0.987	0.100	9.3	25.0
Chloroethane	0.616	0.656		6.5	
Trichlorofluoromethane	3.048	2.447		19.7	
Methylene Chloride	1.552	1.652		6.4	
Acetone	0.355	0.277		22.0	
Carbon Disulfide	3.246	3.741		15.2	
1,1-Dichloroethene	1.195	1.240	0.100	3.8	25.0
1,1-Dichloroethane	2.506	2.572	0.200	2.6	25.0
cis-1,2-Dichloroethene	1.352	1.363		0.8	
trans-1,2-Dichloroethene	1.222	1.316		7.7	
Chloroform	3.250	3.216	0.200	1.0	25.0
1,2-Dichloroethane	2.080	1.933	0.100	7.1	25.0
2-Butanone	0.600	0.488		18.7	
1,1,1-Trichloroethane	0.746	0.688	0.100	7.8	25.0
Carbon Tetrachloride	0.757	0.713	0.100	5.8	25.0
cis-1,3-Dichloropropene	0.547	0.559	0.200	2.2	25.0
Bromodichloromethane	0.821	0.794	0.200	3.3	25.0
1,2-Dichloropropane	0.349	0.389		11.5	
Trichloroethene	0.435	0.447	0.300	2.8	25.0
Dibromochloromethane	0.752	0.735	0.100	2.3	25.0
1,1,2-Trichloroethane	0.374	0.384	0.100	2.7	25.0
Benzene	0.796	0.854	0.500	7.3	25.0
trans-1,3-Dichloropropene	0.486	0.467	0.100	3.9	25.0
Bromoform	0.627	0.576	0.100	8.1	25.0
4-Methyl-2-Pentanone	0.493	0.403		18.2	
2-Hexanone	0.304	0.259		14.8	
Tetrachloroethene	0.500	0.485	0.200	3.0	25.0
1,1,2,2-Tetrachloroethane	0.841	0.839	0.300	0.2	25.0
Toluene	1.165	1.154	0.400	0.9	25.0
Chlorobenzene	0.977	0.982	0.500	0.5	25.0
Ethylbenzene	0.407	0.406	0.100	0.2	25.0
Styrene	0.817	0.814	0.300	0.4	25.0
o-Xylene	0.503	0.492	0.300	2.2	25.0
m & p-Xylene	0.523	0.517	0.300	1.1	25.0
Xylenes (Total)	0.503	0.492	0.300	2.2	25.0

All other compounds must meet a minimum RRF of 0.010.

7A  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lionville Laboratory Inc. Contract: 01667-601-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 03L980

Instrument ID: 5972H Calibration Date: 03/25/3 Time: 0744

Lab File ID: H032502 Init. Calib. Date(s): 03/06/3 03/06/3

Heated Purge: (Y/N) Y Init. Calib. Times: 0737 1204

GC Column: RTX-624 ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
1,2-Dichlorobenzene	0.863	0.852		1.3	
1,3-Dichlorobenzene	0.851	0.856		0.6	
1,4-Dichlorobenzene	0.944	0.946		0.2	
Freon-113	2.134	2.205		3.3	
Dichlorodifluoromethane	2.188	2.133		2.5	
Methyl-T-Butylether	2.592	2.530		2.4	
Methyl Acetate	1.146	1.043		9.0	
Cyclohexane	0.405	0.434		7.2	
Methylcyclohexane	0.414	0.450		8.7	
1,2-Dibromoethane	0.721	0.724		0.4	
Isopropylbenzene	1.528	1.480		3.1	
1,2-Dibromo-3-Chloropropane	0.231	0.211		8.6	
1,2,4-Trichlorobenzene	0.650	0.649	0.200	0.2	25.0
1,2-Dichloroethane-d4	1.940	1.699		12.4	
Toluene-d8	1.024	0.962		6.0	
Bromofluorobenzene	0.825	0.821	0.200	0.5	25.0

All other compounds must meet a minimum RRF of 0.010.

Data File: \\LILANO4\\chem\\MSVDA\\5972H.i\\H0325030.b\\H032502.D

Date : 25-MAR-2003 07:44

Client ID: VSTD50

Sample Info: VSTD50 H032501

Purge Volume: 5.0

Column Phase: RTX-624

Page 1

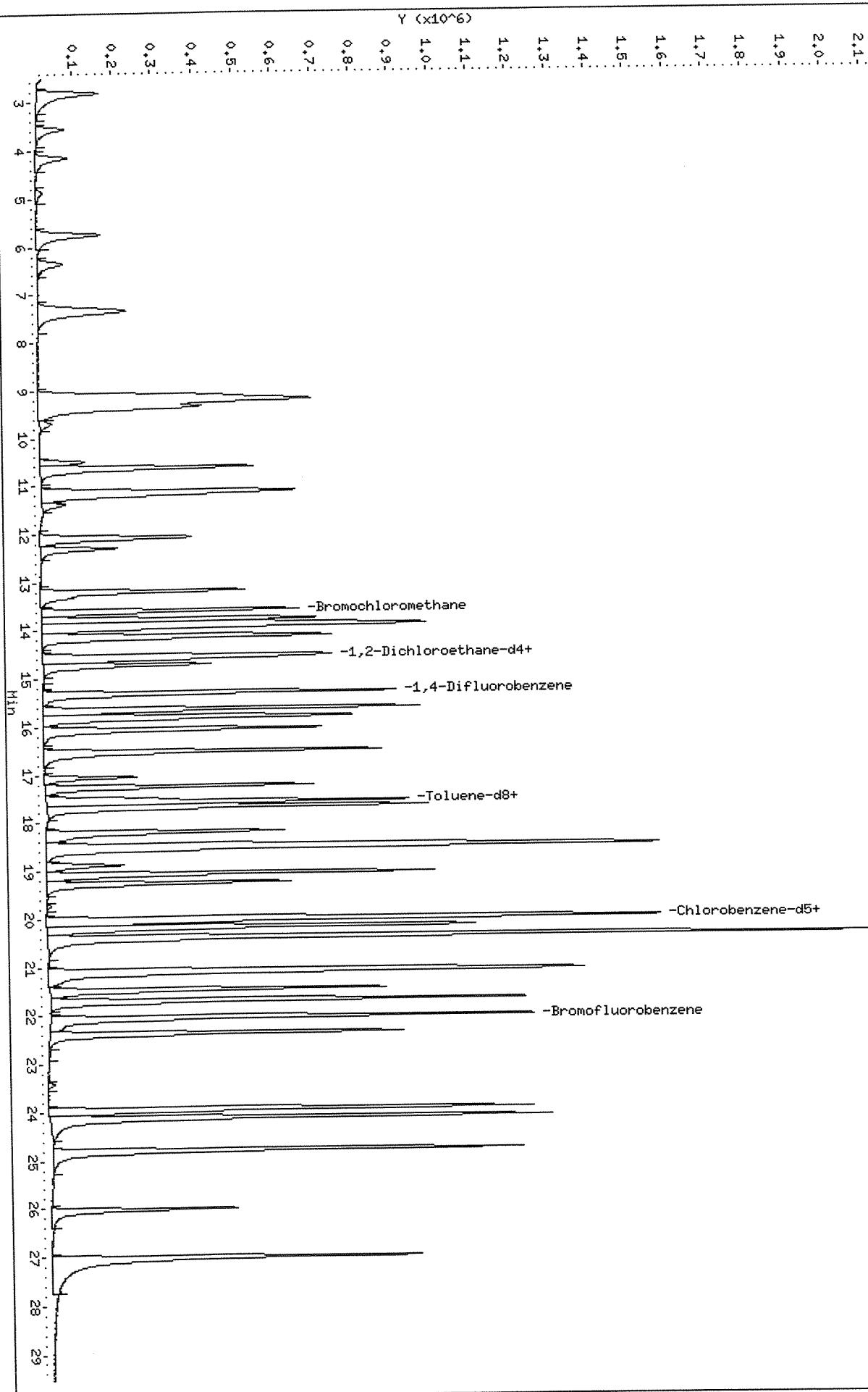
134

Instrument: 5972H.i

Operator: HFS

Column diameter: 0.53

\\LILANO4\\chem\\MSVDA\\5972H.i\\H0325030.b\\H032502.D



Lionville Laboratory, Inc.

Data file : \\LILAN04\chem\MSVOA\5972H.i\H032503o.b\H032502.D  
Lab Smp Id: VSTD50 Client Smp ID: VSTD50  
Inj Date : 25-MAR-2003 07:44 Inst ID: 5972h.i  
Operator : MFS  
Smp Info : VSTD50 H032501  
Misc Info : DIL,1,DF8260 CCL  
Comment :  
Method : \\LILAN04\chem\MSVOA\5972H.i\H032503o.b\Olm4.1w.m  
Meth Date : 25-Mar-2003 08:29 schneidm Quant Type: ISTD  
Cal Date : 25-MAR-2003 07:44 Cal File: H032502.D  
Als bottle: 2 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: all.sub  
Target Version: 4.00  
Processing Host: MSVOA2

Concentration Formula: Amt \* DF \* Uf/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)

Compounds	QUANT SIG	AMOUNTS					
		MASS	RT	EXP RT	REL RT	RESPONSE	( ug/L)
* 1 Bromochloromethane	128	13.602	13.602 (1.000)	430919	50.0000		
* 2 1,4-Difluorobenzene	114	15.321	15.321 (1.000)	1809865	50.0000		
* 3 Chlorobenzene-d5	117	20.012	20.012 (1.000)	1547245	50.0000		
\$ 4 1,2-Dichloroethane-d4	65	14.610	14.610 (1.074)	732133	50.0000	43.786	
\$ 5 Toluene-d8	98	17.592	17.592 (0.879)	1487707	50.0000	46.939	
\$ 6 Bromofluorobenzene	95	22.056	22.056 (1.102)	1270021	50.0000	49.712	
68 Dichlorodifluoromethane	85	2.818	2.818 (0.207)	919072	50.0000	48.734	
7 Chloromethane	50	3.559	3.559 (0.262)	378314	50.0000	55.188	
8 Vinyl Chloride	62	4.151	4.151 (0.305)	425378	50.0000	54.650	
9 Bromomethane	94	5.751	5.751 (0.423)	528434	50.0000	52.461	
10 Chlороethane	64	6.353	6.353 (0.467)	282917	50.0000	53.244	
11 Trichlorofluoromethane	101	7.361	7.361 (0.541)	1054287	50.0000	40.135	
13 Acrolein	56	9.188	9.188 (0.675)	45892	50.0000	46.700(a)	
14 1,1-Dichloroethene	96	9.109	9.109 (0.670)	534139	50.0000	51.848	
65 Freon-113	151	9.237	9.237 (0.679)	950365	50.0000	51.676	
15 Carbon Disulfide	76	9.375	9.375 (0.689)	1612150	50.0000	57.626	
66 Iodomethane	142	Compound Not Detected.					

Compounds	QUANT SIG	AMOUNTS					
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT ( ug/L)
16 Acetone	43	9.691	9.691	(0.712)	119228	50.0000	38.921
17 Methylene Chloride	84	10.639	10.639	(0.782)	712129	50.0000	53.228
64 Acetonitrile	41	10.531	10.531	(0.774)	52896	100.000	88.162
69 Methyl Acetate	43	10.501	10.501	(0.772)	449437	50.0000	45.517
M 18 1,2-Dichloroethene (Total)	96				1154178	100.000	104.06
19 trans-1,2-Dichloroethene	96	11.123	11.123	(0.818)	566897	50.0000	53.833
20 Methyl-T-Butylether	73	11.193	11.193	(0.823)	1090477	50.0000	48.817
21 Acrylonitrile	53	11.400	11.400	(0.838)	125842	50.0000	54.092
23 1,1-Dichloroethane	63	12.081	12.081	(0.888)	1108545	50.0000	51.328
24 Vinyl Acetate	43	12.299	12.299	(0.904)	821111	50.0000	38.362
25 cis-1,2-Dichloroethene	96	13.197	13.197	(0.970)	587281	50.0000	50.397
26 2-Butanone	43	13.326	13.326	(0.980)	210540	50.0000	40.689
27 Chloroform	83	13.790	13.790	(1.014)	1385895	50.0000	49.475
70 Cyclohexane	56	13.889	13.889	(0.907)	784603	50.0000	53.533
28 1,1,1-Trichloroethane	97	13.938	13.938	(0.910)	1245204	50.0000	46.095
29 Carbon Tetrachloride	117	14.145	14.145	(0.923)	1289899	50.0000	47.072
30 Benzene	78	14.550	14.550	(0.950)	1544724	50.0000	53.597
31 1,2-Dichloroethane	62	14.738	14.738	(1.083)	833177	50.0000	46.480
32 Trichloroethene	130	15.656	15.656	(1.022)	808344	50.0000	51.320
71 Methylcyclohexane	83	15.824	15.824	(1.033)	813679	50.0000	54.238
33 1,2-Dichloroproppane	63	16.071	16.071	(1.049)	703562	50.0000	55.720
34 Bromodichloromethane	83	16.535	16.535	(1.079)	1436757	50.0000	48.369
35 2-Chloroethylvinylether	63	17.059	17.059	(1.113)	266385	100.000	74.869
36 cis-1,3-Dichloropropene	75	17.266	17.266	(1.127)	1012563	50.0000	51.091
37 4-Methyl-2-Pentanone	43	17.523	17.523	(0.876)	623770	50.0000	40.921
38 Toluene	91	17.701	17.701	(0.885)	1785057	50.0000	49.511
39 trans-1,3-Dichloropropene	75	18.214	18.214	(1.189)	845963	50.0000	48.085
40 1,1,2-Trichloroethane	97	18.501	18.501	(1.208)	695200	50.0000	51.375
41 Tetrachloroethene	164	18.550	18.550	(0.927)	750409	50.0000	48.456
42 Dibromochloromethane	129	19.083	19.083	(1.246)	1329738	50.0000	48.863
72 1,2-Dibromoethane	107	19.271	19.271	(0.963)	1121046	50.0000	50.215
43 2-Hexanone	43	18.886	18.886	(0.944)	400833	50.0000	42.538
44 Chlorobenzene	112	20.061	20.061	(1.002)	1518904	50.0000	50.220
45 Ethylbenzene	106	20.209	20.209	(1.010)	628210	50.0000	49.873
46 m & p-Xylene	106	20.417	20.417	(1.020)	1601398	100.000	98.824
47 o-Xylene	106	21.098	21.098	(1.054)	762034	50.0000	48.973
73 Isopropylbenzene	105	21.720	21.720	(1.085)	2289988	50.0000	48.447
M 48 Xylenes (Total)	106				2363432	50.0000	151.89
49 Styrene	104	21.147	21.147	(1.057)	1259766	50.0000	49.815
50 Bromoform	173	21.493	21.493	(1.403)	1042132	50.0000	45.903
51 1,1,2,2-Tetrachloroethane	83	22.382	22.382	(1.118)	1297907	50.0000	49.898
52 1,3-Dichlorobenzene	146	23.972	23.972	(1.198)	1324593	50.0000	50.322
53 1,4-Dichlorobenzene	146	24.150	24.150	(1.207)	1463906	50.0000	50.090
54 1,2-Dichlorobenzene	146	24.811	24.811	(1.240)	1318367	50.0000	49.368
74 1,2-Dibromo-3-Chloropropane	75	26.036	26.036	(1.301)	326532	50.0000	45.710
75 1,2,4-Trichlorobenzene	180	27.033	27.033	(1.351)	1003929	50.0000	49.896
76 Hexane	57	11.183	11.183	(0.822)	274127	50.0000	(a)

Compounds	QUANT SIG	AMOUNTS						
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT ( ug/L)	ON-COL ( ug/L)
		====	==	=====	=====	=====	=====	=====
77 1,2-Diethylbenzene	105	24.150	24.150	(1.775)	129	50.0000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

## **Raw QC Data: Tune, Method Blank and Spike Data**

Date : 06-MAR-2003 07:15

Client ID: bfb50ng

Instrument: 5972h.i

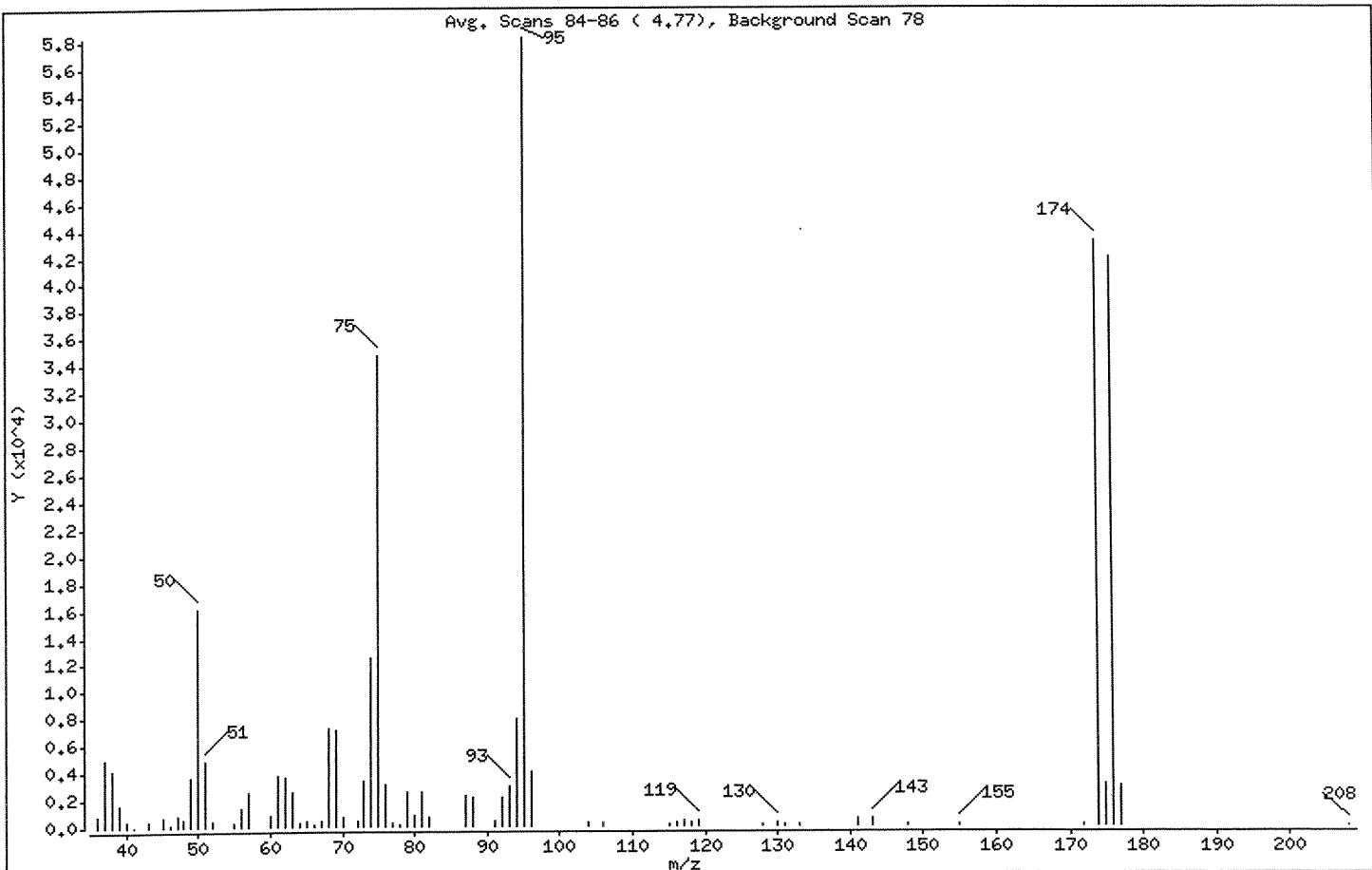
Sample Info: BFB50NG H030601

Operator: MFS

Column phase: RTX 624

Column diameter: 0.53

1 bfb

*(Signature)*

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
		ABUNDANCE	ABUNDANCE
95	Base Peak, 100% relative abundance	100.00	
50	15.00 - 40.00% of mass 95	27.51	
75	30.00 - 60.00% of mass 95	59.44	
96	5.00 - 9.00% of mass 95	7.00	
173	Less than 2.00% of mass 174	0.00 (0.00)	
174	50.00 - 100.00% of mass 95	73.96	
175	5.00 - 9.00% of mass 174	5.27 (7.12)	
176	95.06 - 100.94% of mass 174	72.07 (97.45)	
177	5.00 - 9.00% of mass 176	4.95 (6.87)	

Date : 06-MAR-2003 07:15

Client ID: bfb50ng

Instrument: 5972h.i

Sample Info: BFB50NG H030601

Operator: MFS

Column phase: RTX 624

Column diameter: 0.53

Data File: H030601.D

Spectrum: Avg., Scans 84-86 ( 4,77), Background Scan 78

Location of Maximum: 95.00

Number of points: 69

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	846	60.00	835	79.00	2524	119.00	432
37.00	4914	61.00	3781	80.00	761	128.00	160
38.00	4183	62.00	3572	81.00	2566	130.00	259
39.00	1578	63.00	2539	82.00	647	131.00	138
40.00	455	64.00	223	87.00	2321	133.00	155
41.00	56	65.00	336	88.00	2207	141.00	535
43.00	357	66.00	68	91.00	456	143.00	551
45.00	736	67.00	339	92.00	2115	148.00	161
46.00	68	68.00	7173	93.00	2913	155.00	69
47.00	831	69.00	7083	94.00	7845	172.00	140
48.00	565	70.00	643	95.00	58280	174.00	43104
49.00	3654	72.00	442	96.00	4082	175.00	3070
50.00	16036	73.00	3329	104.00	287	176.00	42000
51.00	4849	74.00	12446	106.00	223	177.00	2885
52.00	362	75.00	34640	115.00	157	208.00	17
55.00	328	76.00	3029	116.00	256		
56.00	1356	77.00	242	117.00	370		
57.00	2497	78.00	126	118.00	256		

Date : 06-MAR-2003 07:15

Client ID: bfb50ng

Instrument: 5972h.i

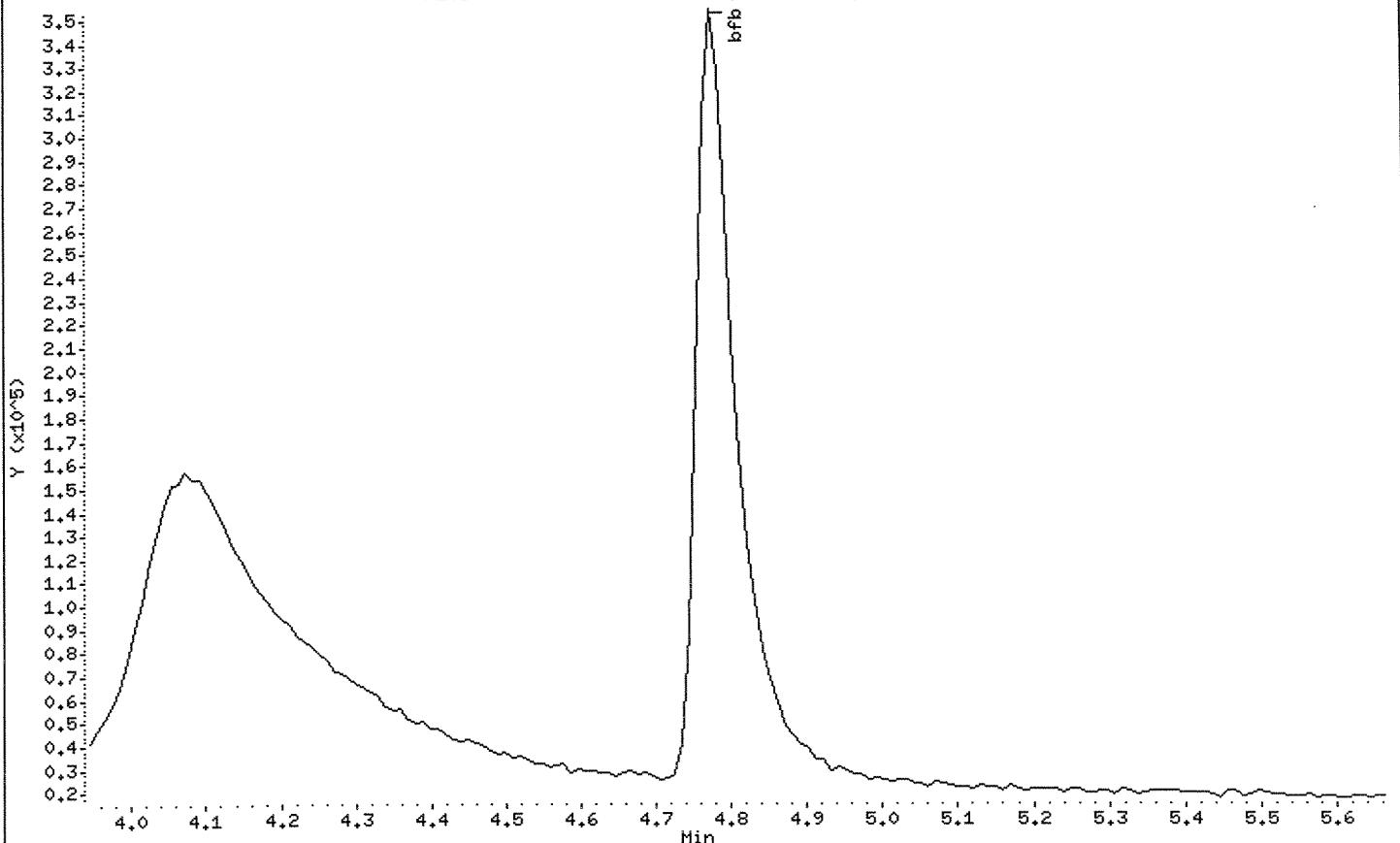
Sample Info: BFB50NG H030601

Operator: MFS

Column phase: RTX 624

Column diameter: 0.53

\\LILAN04\I\chem\MSV0A\5972H.i\H030603o.b\H030601.D



Date : 24-MAR-2003 07:50

Client ID: bfb50ng

Sample Info: BFB50NG H032401

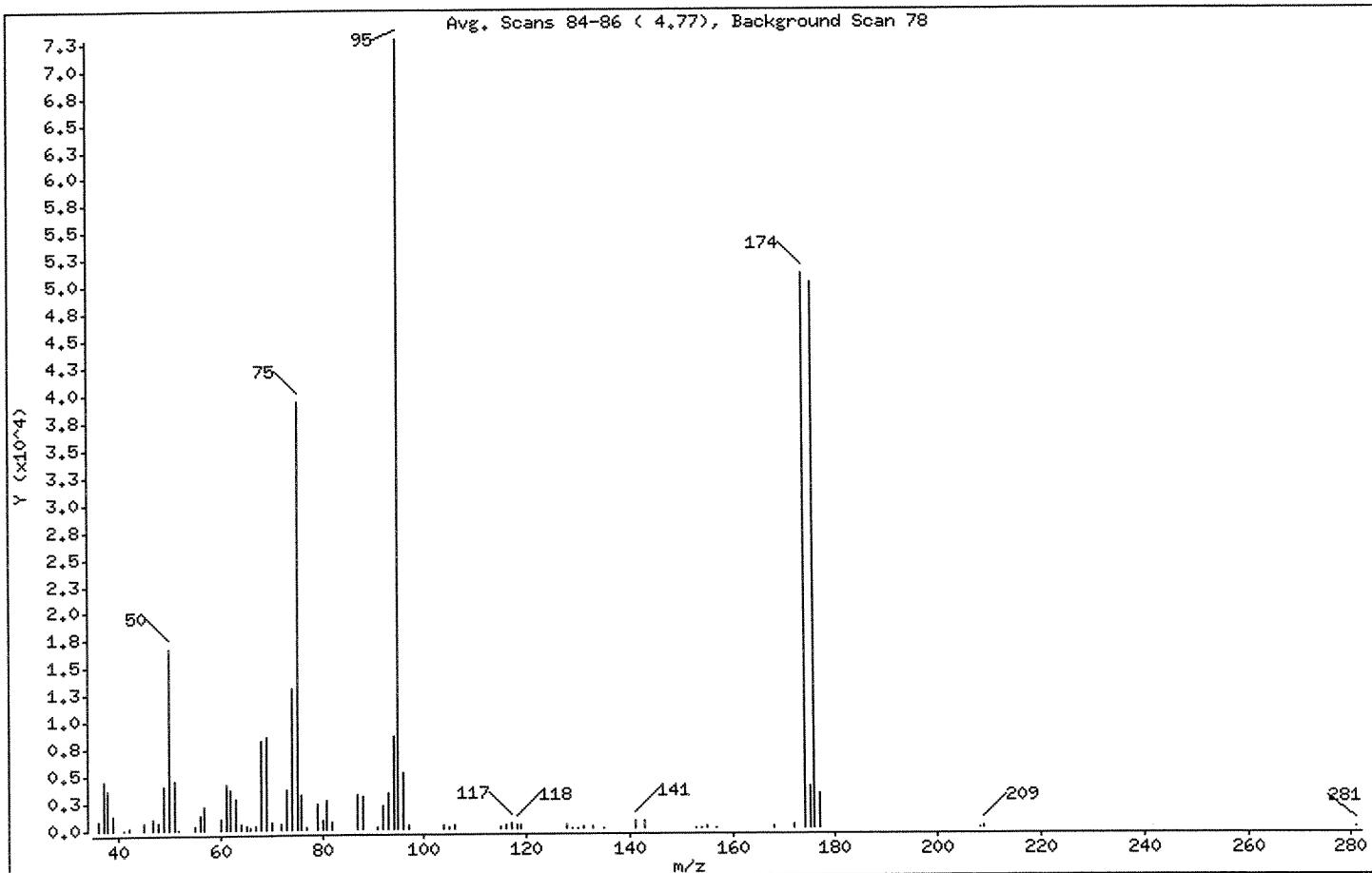
Instrument: 5972h.i

Column phase: RTX 624

Operator: MFS

1 bfb

Column diameter: 0.53

*One*

ION ABUNDANCE CRITERIA		% RELATIVE ABUNDANCE
95   Base Peak, 100% relative abundance		100.00
50   15.00 - 40.00% of mass 95		22.91
75   30.00 - 60.00% of mass 95		54.04
96   5.00 - 9.00% of mass 95		7.07
173   Less than 2.00% of mass 174		0.00 (0.00)
174   50.00 - 100.00% of mass 95		70.07
175   5.00 - 9.00% of mass 174		5.33 (7.61)
176   95.06 - 100.94% of mass 174		68.91 (98.34)
177   5.00 - 9.00% of mass 176		4.37 (6.34)

Date : 24-MAR-2003 07:50

Client ID: bfb50ng

Instrument: 5972h.i

Sample Info: BFB50NG H032401

Operator: MFS

Column phase: RTX 624

Column diameter: 0.53

Data File: H032401.D

Spectrum: Avg. Scans 84-86 ( 4.77), Background Scan 78

Location of Maximum: 95.00

Number of points: 75

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	863	63.00	2823	88.00	2991	131.00	172
37.00	4480	64.00	457	91.00	239	133.00	160
38.00	3741	65.00	415	92.00	2102	135.00	68
39.00	1303	66.00	236	93.00	3290	141.00	637
41.00	55	67.00	379	94.00	8603	143.00	615
42.00	140	68.00	8158	95.00	72800	153.00	45
45.00	712	69.00	8459	96.00	5146	154.00	23
47.00	1029	70.00	637	97.00	257	155.00	140
48.00	637	72.00	441	104.00	381	157.00	70
49.00	4047	73.00	3684	105.00	172	168.00	165
50.00	16672	74.00	13042	106.00	345	172.00	258
51.00	4547	75.00	39344	115.00	243	174.00	51016
52.00	81	76.00	3183	116.00	270	175.00	3884
55.00	351	77.00	137	117.00	486	176.00	50168
56.00	1293	79.00	2422	118.00	272	177.00	3182
57.00	2240	80.00	800	119.00	260	208.00	35
60.00	937	81.00	2730	128.00	269	209.00	209
61.00	4221	82.00	599	129.00	75	281.00	36
62.00	3747	87.00	3105	130.00	79		

Data File: \\LILAN04\I\chem\MSV0A\5972H.i\H032403o.b\H032401.D

Page 1

Date : 24-MAR-2003 07:50

Client ID: bfb50ng

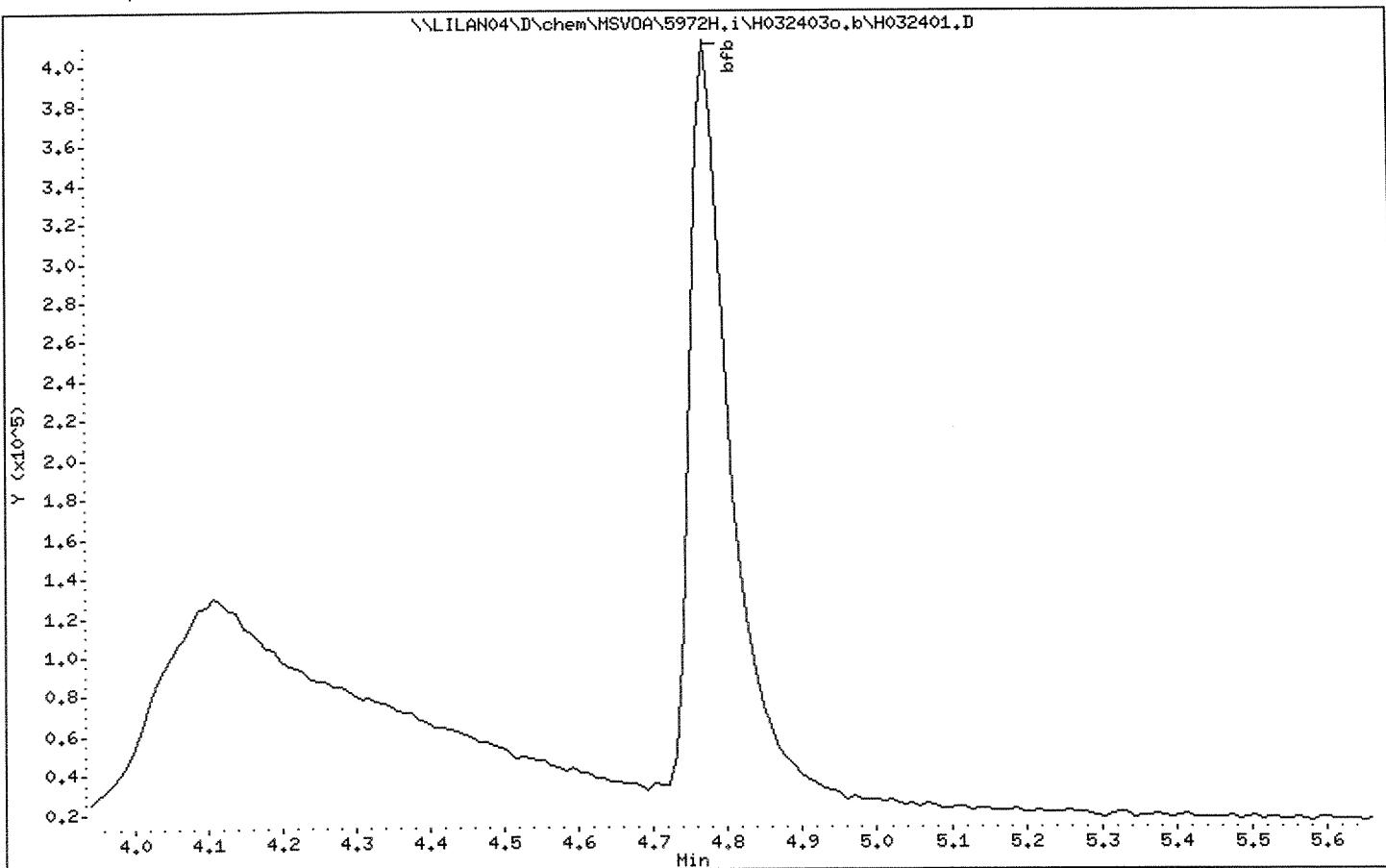
Instrument: 5972h,i

Sample Info: BFB50NG H032401

Operator: MFS

Column phase: RTX 624

Column diameter: 0.53



Date : 25-MAR-2003 07:20

Client ID: bfb50ng

Instrument: 5972h.i

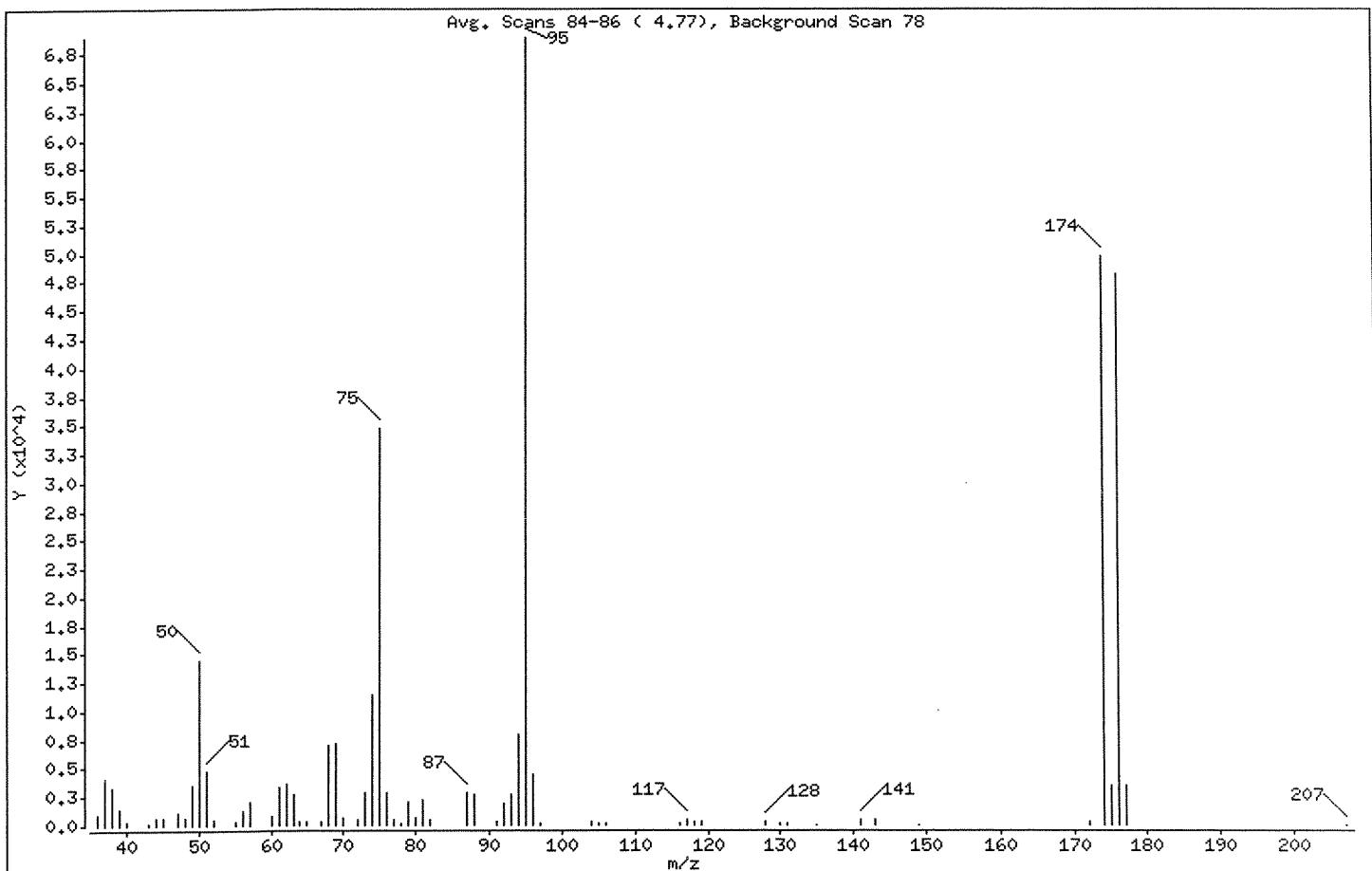
Sample Info: BFB50NG H032501

Operator: MFS

Column phase: RTX 624

Column diameter: 0.53

1 bfb

*out*

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
		ABUNDANCE	ABUNDANCE
95	Base Peak, 100% relative abundance	100.00	
50	15.00 - 40.00% of mass 95	21.02	
75	30.00 - 60.00% of mass 95	50.42	
96	5.00 - 9.00% of mass 95	6.51	
173	Less than 2.00% of mass 174	0.00 (< 0.00)	
174	50.00 - 100.00% of mass 95	72.11	
175	5.00 - 9.00% of mass 174	5.09 (< 7.06)	
176	95.06 - 100.94% of mass 174	69.91 (< 96.94)	
177	5.00 - 9.00% of mass 176	5.00 (< 7.16)	

Date : 25-MAR-2003 07:20

Client ID: bfb50ng

Instrument: 5972h.i

Sample Info: BFB50NG H032501

Operator: MFS

Column phase: RTX 624

Column diameter: 0.53

Data File: H032501.D

Spectrum: Avg., Scans 84-86 ( 4.77), Background Scan 78

Location of Maximum: 95.00

Number of points: 67

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	919	60.00	727	79.00	2113	117.00	406
37.00	4137	61.00	3367	80.00	622	118.00	258
38.00	3277	62.00	3612	81.00	2183	119.00	369
39.00	1356	63.00	2674	82.00	427	128.00	265
40.00	352	64.00	333	87.00	2801	130.00	86
43.00	209	65.00	371	88.00	2750	131.00	166
44.00	597	67.00	354	91.00	329	135.00	68
45.00	644	68.00	6956	92.00	1870	141.00	526
47.00	1053	69.00	7114	93.00	2762	143.00	511
48.00	597	70.00	575	94.00	7905	149.00	74
49.00	3452	72.00	432	95.00	68984	172.00	294
50.00	14504	73.00	2897	96.00	4490	174.00	49744
51.00	4697	74.00	11441	97.00	103	175.00	3514
52.00	400	75.00	34784	104.00	293	176.00	48224
55.00	373	76.00	2917	105.00	82	177.00	3452
56.00	1228	77.00	429	106.00	157	207.00	67
57.00	2125	78.00	203	116.00	93		

Data File: \\LILAN04\chem\MSV0A\5972H.i\H032503o.b\H032501.D

Page 1

Date : 25-MAR-2003 07:20

Client ID: bfb50ng

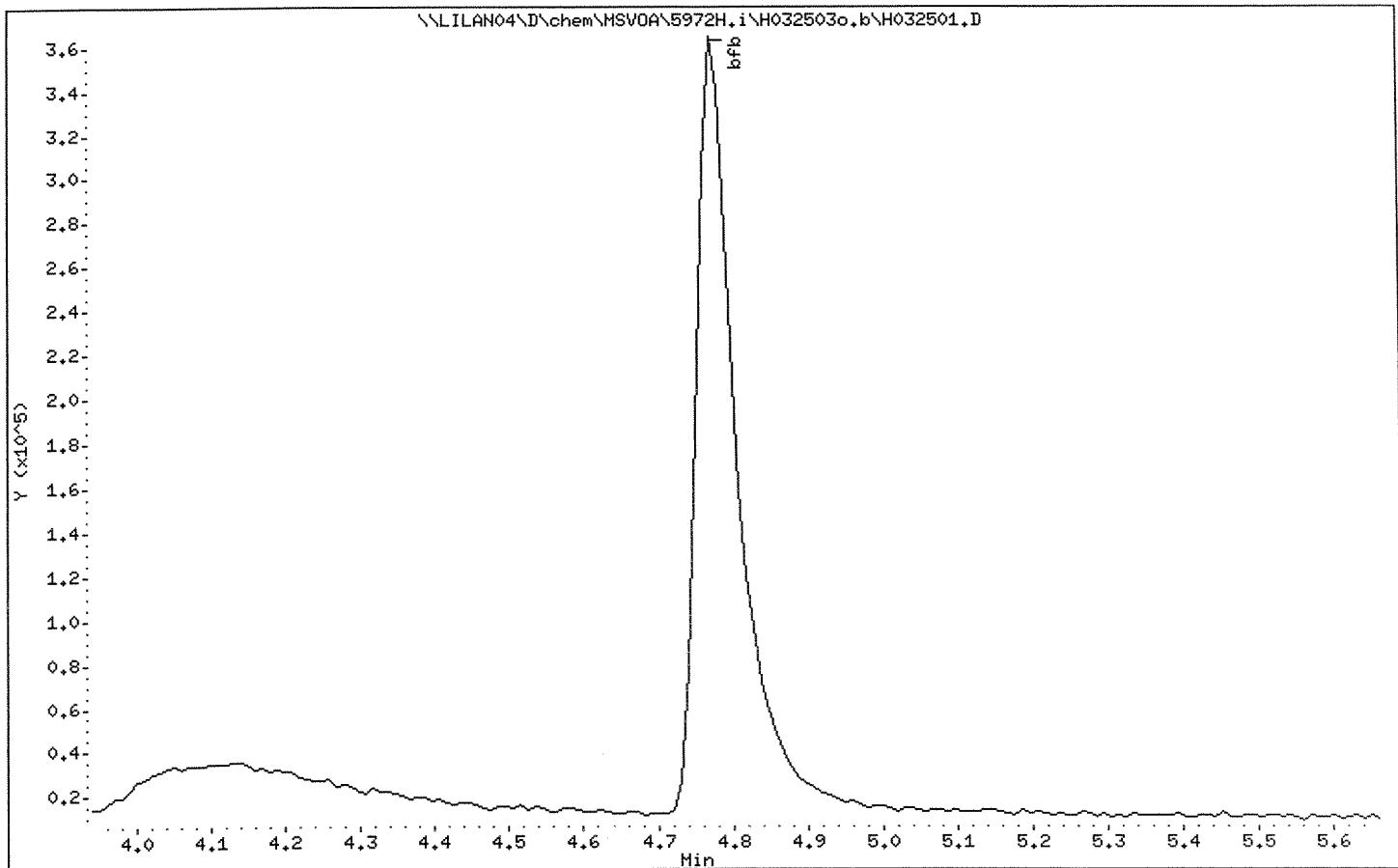
Instrument: 5972h.i

Sample Info: BFB50NG H032501

Operator: MFS

Column phase: RTX 624

Column diameter: 0.53



## VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Lionville Labs, Inc. Contract: 01667601001

VBLKMU

Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 03LVH059-MB1Sample wt/vol: 5.00 (g/mL) MLLab File ID: h032405Level: (low/med) LOWDate Received: 03/24/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	<u>ug/L</u>
75-71-8-----	Dichlorodifluoromethane	10	U
74-87-3-----	Chloromethane	10	U
75-01-4-----	Vinyl Chloride	10	U
74-83-9-----	Bromomethane	10	U
75-00-3-----	Chloroethane	10	U
75-69-4-----	Trichlorofluoromethane	10	U
75-35-4-----	1,1-Dichloroethene	10	U
76-13-1-----	1,1,2-Trichlorotrifluoroethane	10	U
67-64-1-----	Acetone	10	U
75-15-0-----	Carbon Disulfide	10	U
79-20-9-----	Methyl Acetate	10	U
75-09-2-----	Methylene Chloride	13	
156-60-5-----	Trans-1,2-dichloroethene	10	U
1634-04-4-----	tert-Butyl Methyl Ether	10	U
75-34-3-----	1,1-Dichloroethane	10	U
156-59-2-----	Cis-1,2-dichloroethene	10	U
78-93-3-----	2-Butanone	10	U
67-66-3-----	Chloroform	10	U
71-55-6-----	1,1,1-Trichloroethane	10	U
110-82-7-----	Cyclohexane	10	U
56-23-5-----	Carbon Tetrachloride	10	U
71-43-2-----	Benzene	10	U
107-06-2-----	1,2-Dichloroethane	10	U
79-01-6-----	Trichloroethene	10	U
108-87-2-----	Methylcyclohexane	10	U
78-87-5-----	1,2-Dichloropropane	10	U
75-27-4-----	Bromodichloromethane	10	U
10061-01-5-----	cis-1,3-Dichloropropene	10	U
108-10-1-----	4-Methyl-2-pentanone	10	U
108-88-3-----	Toluene	10	U
10061-02-6-----	Trans-1,3-Dichloropropene	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
127-18-4-----	Tetrachloroethene	10	U
591-78-6-----	2-Hexanone	10	U

## VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKMU

Lab Name: Lionville Labs, Inc. Contract: 01667601001Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 03LVH059-MB1Sample wt/vol: 5.00 (g/mL) MLLab File ID: h032405Level: (low/med) LOWDate Received: 03/24/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) ug/L

Q

124-48-1-----	Dibromochloromethane	10	U
106-93-4-----	1,2-Dibromoethane	10	U
108-90-7-----	Chlorobenzene	10	U
100-41-4-----	Ethylbenzene	10	U
1330-20-7-----	Xylene (total)	10	U
100-42-5-----	Styrene	10	U
75-25-2-----	Bromoform	10	U
98-82-8-----	Isopropylbenzene	10	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U
541-73-1-----	1,3-Dichlorobenzene	10	U
106-46-7-----	1,4-Dichlorobenzene	10	U
95-50-1-----	1,2-Dichlorobenzene	10	U
96-12-8-----	1,2-Dibromo-3-chloropropane	10	U
120-82-1-----	1,2,4-Trichlorobenzene	10	U

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Lionville Labs, Inc. Contract: 01667601001

VBLKMU
--------

Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATER

Lab Sample ID: 03LVH059-MB1

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: h032405

Level: (low/med) LOW

Date Received: 03/24/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

Data File: /chem/mswoa3/5972h.i/h032403o.b/h032405.d

Date : 24-MAR-03 10:07:00

Client ID: VBLKMU

Sample Info: 03LWH059-MB1 H032401,[AL=0624001,[DC=00]

Purge Volume: 5.0

Column Phase: RTX-624

Page 4

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Instrument: 5972H.i

Operator: MFS  
Column diameter: 0.53

/chem/mswoa3/5972h.i/h032403o.b/h032405.d

-Bromochloromethane (13,606)

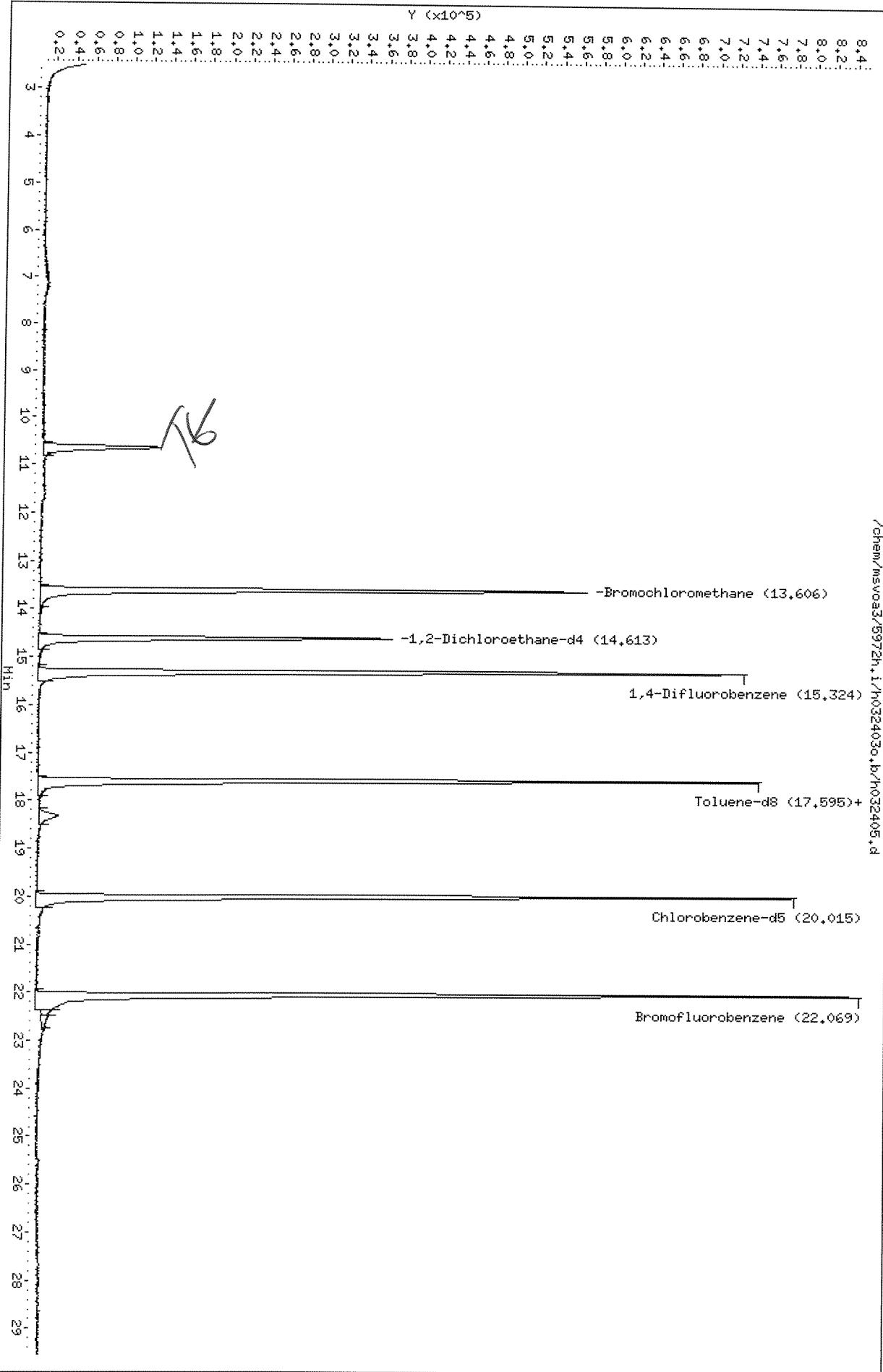
-1,2-Dichloroethane-d4 (14,613)

1,4-Difluorobenzene (15,324)

Toluene-d8 (17,595)+

Chlorobenzene-d5 (20,015)

Bromofluorobenzene (22,069)



Lionville Laboratory Inc.

Data file : /chem/msvoa3/5972h.i/h032403o.b/h032405.d  
Lab Smp Id: 03LVH059-MB1 Client Smp ID: VBLKMU  
Inj Date : 24-MAR-03 10:07:00  
Operator : MFS Inst ID: 5972H.i  
Smp Info : 03LVH059-MB1 H032401, [AL=O624CO], [DC=00]  
Misc Info : DIL,1,WATER VBLK 5ML  
Comment :  
Method : /chem/msvoa3/5972h.i/h032403o.b/olm4.1w.m  
Meth Date : 26-Mar-03 10:32:50 rubinob Quant Type: ISTD  
Cal Date : 24-MAR-03 08:50:00 Cal File: h032403.d  
Als bottle: 5 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: O624CO.sub  
Target Version: 3.30  
Processing Host: hp4920a

Concentration Formula: Uf/Vo

Name	Value	Description
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	( ug/L)
* 1 Bromochloromethane	====	128	13.615	13.605 (1.000)	349379	50.0000	
* 2 1,4-Difluorobenzene	==	114	15.324	15.314 (1.000)	1411658	50.0000	
* 3 Chlorobenzene-d5	=====	117	20.015	20.015 (1.000)	1136305	50.0000	
\$ 4 1,2-Dichloroethane-d4	=====	65	14.613	14.603 (1.073)	640672	51.1567	51.157
\$ 5 Toluene-d8	=====	98	17.595	17.585 (0.879)	1229821	53.0947	53.095
\$ 6 Bromofluorobenzene	=====	95	22.069	22.059 (1.103)	871862	44.6065	44.606
68 Dichlorodifluoromethane	85.00			Compound Not Detected.			
7 Chloromethane	50.00			Compound Not Detected.			
8 Vinyl Chloride	62.00			Compound Not Detected.			
9 Bromomethane	94.00			Compound Not Detected.			
10 Chloroethane	64.00			Compound Not Detected.			
11 Trichlorofluoromethane	101.00			Compound Not Detected.			
14 1,1-Dichloroethene	96.00			Compound Not Detected.			
65 Freon-113	151.00			Compound Not Detected.			
16 Acetone	43		9.714	9.695 (0.713)	2518	1.19023	1.190(a)
15 Carbon Disulfide	76.00			Compound Not Detected.			
69 Methyl Acetate	43.00			Compound Not Detected.			

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
17 Methylene Chloride	84		10.643	10.643 (0.782)		149452	12.7050	12.705 ✓
19 trans-1,2-Dichloroethene	96.00			Compound Not Detected.				
20 Methyl-T-Butylether	73.00			Compound Not Detected.				
23 1,1-Dichloroethane	63.00			Compound Not Detected.				
25 cis-1,2-Dichloroethene	96.00			Compound Not Detected.				
26 2-Butanone	43.00			Compound Not Detected.				
27 Chloroform	83.00			Compound Not Detected.				
28 1,1,1-Trichloroethane	97.00			Compound Not Detected.				
70 Cyclohexane	56.00			Compound Not Detected.				
29 Carbon Tetrachloride	117.00			Compound Not Detected.				
30 Benzene	78.00			Compound Not Detected.				
31 1,2-Dichloroethane	62.00			Compound Not Detected.				
32 Trichloroethene	130.00			Compound Not Detected.				
71 Methylcyclohexane	83.00			Compound Not Detected.				
33 1,2-Dichloropropane	63.00			Compound Not Detected.				
34 Bromodichloromethane	83.00			Compound Not Detected.				
36 cis-1,3-Dichloropropene	75.00			Compound Not Detected.				
37 4-Methyl-2-Pentanone	43	17.605	17.516 (0.880)		9218	0.92184	0.9218 (a) ✓	✓
38 Toluene	91.00			Compound Not Detected.				
39 trans-1,3-Dichloropropene	75.00			Compound Not Detected.				
40 1,1,2-Trichloroethane	97.00			Compound Not Detected.				
41 Tetrachloroethene	164.00			Compound Not Detected.				
43 2-Hexanone	43.00			Compound Not Detected.				
42 Dibromochloromethane	129.00			Compound Not Detected.				
72 1,2-Dibromoethane	107.00			Compound Not Detected.				
44 Chlorobenzene	112.00			Compound Not Detected.				
45 Ethylbenzene	106.00			Compound Not Detected.				
46 m & p-Xylene	106.00			Compound Not Detected.				
47 o-Xylene	106.00			Compound Not Detected.				
M 48 Xylenes (Total)	106.00			Compound Not Detected.				
49 Styrene	104.00			Compound Not Detected.				
50 Bromoform	173.00			Compound Not Detected.				
73 Isopropylbenzene	105.00			Compound Not Detected.				
51 1,1,2,2-Tetrachloroethane	83.00			Compound Not Detected.				
52 1,3-Dichlorobenzene	146.00			Compound Not Detected.				
53 1,4-Dichlorobenzene	146.00			Compound Not Detected.				
54 1,2-Dichlorobenzene	146.00			Compound Not Detected.				
74 1,2-Dibromo-3-Chloropropane	75.00			Compound Not Detected.				
75 1,2,4-Trichlorobenzene	180.00			Compound Not Detected.				

B  
3/26/03

#### QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation (BLOQ).

Date : 24-MAR-03 10:07:00

Client ID: VBLKMU

Instrument: 5972H.i

Sample Info: 03LVH059-MB1 H032401,[AL=0624C0],[DC=00]

Purge Volume: 5.0

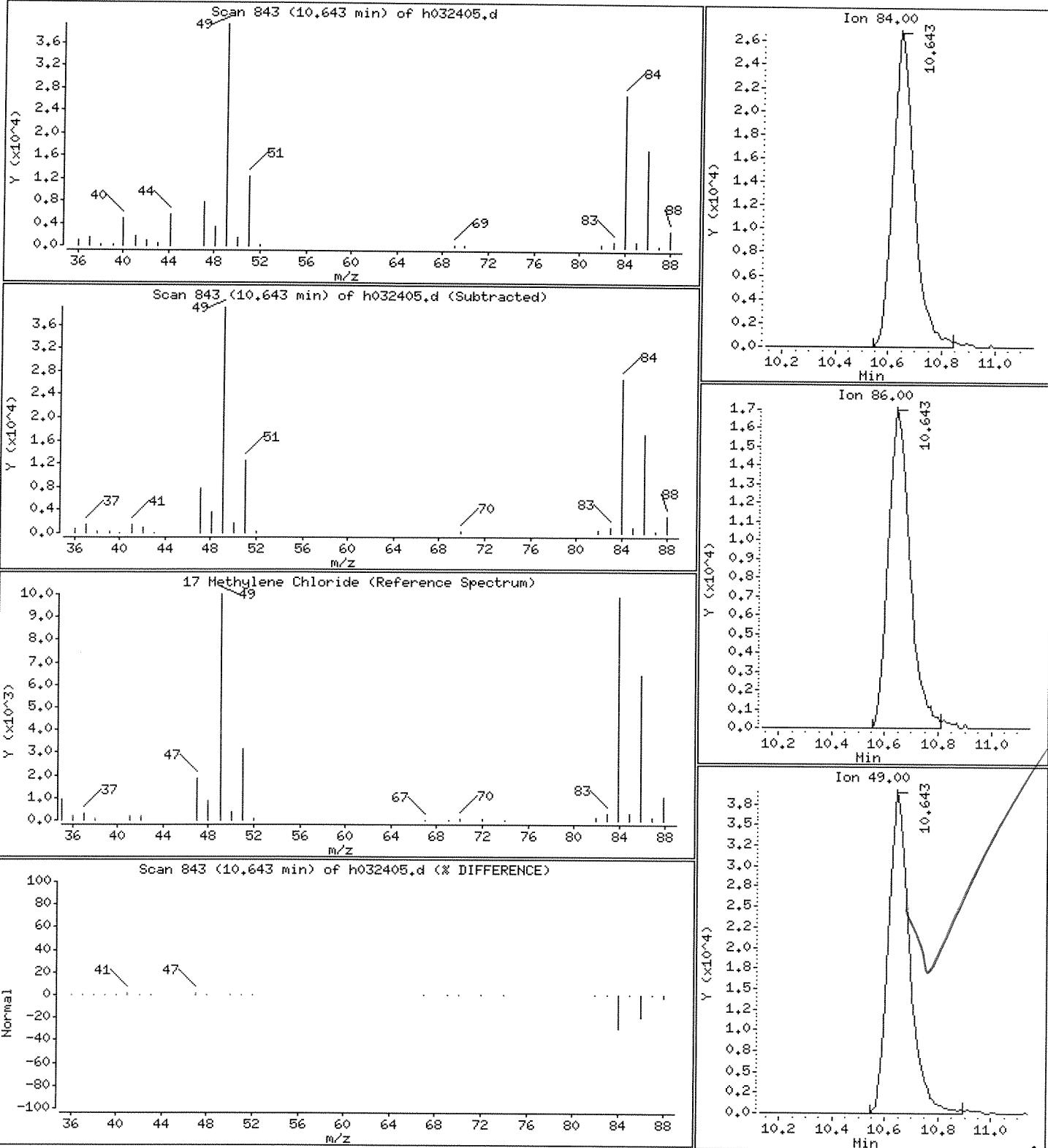
Operator: MFS

Column phase: RTX-624

Column diameter: 0.53

## 17 Methylene Chloride

Concentration: 12.705 ug/L



Lab Name: Lionville Labs, Inc. Contract: 01667601001

VBLKMUMS

Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 03LVH059-MB1 BSSample wt/vol: 5.00 (g/mL) MLLab File ID: h032407Level: (low/med) LOWDate Received: 03/24/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) <u>ug/L</u>	Q
75-71-8-----	Dichlorodifluoromethane	10	U
74-87-3-----	Chloromethane	10	U
75-01-4-----	Vinyl Chloride	10	U
74-83-9-----	Bromomethane	10	U
75-00-3-----	Chloroethane	10	U
75-69-4-----	Trichlorofluoromethane	10	U
75-35-4-----	1,1-Dichloroethene	48	Z
76-13-1-----	1,1,2-Trichlorotrifluoroethane	10	U
67-64-1-----	Acetone	10	U
75-15-0-----	Carbon Disulfide	10	U
79-20-9-----	Methyl Acetate	10	U
75-09-2-----	Methylene Chloride	13	B
156-60-5-----	Trans-1,2-dichloroethene	10	U
1634-04-4-----	tert-Butyl Methyl Ether	10	U
75-34-3-----	1,1-Dichloroethane	10	U
156-59-2-----	Cis-1,2-dichloroethene	10	U
78-93-3-----	2-Butanone	10	U
67-66-3-----	Chloroform	10	U
71-55-6-----	1,1,1-Trichloroethane	10	U
110-82-7-----	Cyclohexane	10	U
56-23-5-----	Carbon Tetrachloride	10	U
71-43-2-----	Benzene	50	Z
107-06-2-----	1,2-Dichloroethane	10	U
79-01-6-----	Trichloroethene	51	Z
108-87-2-----	Methylcyclohexane	10	U
78-87-5-----	1,2-Dichloropropane	10	U
75-27-4-----	Bromodichloromethane	10	U
10061-01-5-----	cis-1,3-Dichloropropene	10	U
108-10-1-----	4-Methyl-2-pentanone	10	U
108-88-3-----	Toluene	52	Z
10061-02-6-----	Trans-1,3-Dichloropropene	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
127-18-4-----	Tetrachloroethene	10	U
591-78-6-----	2-Hexanone	10	U

## VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Lionville Labs, Inc. Contract: 01667601001

VBLKMUMS

Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 03LVH059-MB1 BSSample wt/vol: 5.00 (g/mL) MLLab File ID: h032407Level: (low/med) LOWDate Received: 03/24/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

124-48-1-----	Dibromochloromethane	10	U
106-93-4-----	1,2-Dibromoethane	10	U
108-90-7-----	Chlorobenzene	52	Z
100-41-4-----	Ethylbenzene	10	U
1330-20-7-----	Xylene (total)	10	U
100-42-5-----	Styrene	10	U
75-25-2-----	Bromoform	10	U
98-82-8-----	Isopropylbenzene	10	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U
541-73-1-----	1,3-Dichlorobenzene	10	U
106-46-7-----	1,4-Dichlorobenzene	10	U
95-50-1-----	1,2-Dichlorobenzene	10	U
96-12-8-----	1,2-Dibromo-3-chloropropane	10	U
120-82-1-----	1,2,4-Trichlorobenzene	10	U

Z: SPIKE COMPOUND

FORM 1 V-2

3/90

Data File #: /chem/msv0a3/5972h.i/h0324030.b/h032407.d  
Date : 24-MAR-03 14:19:00

Client ID: VBLKHMRS

Sample Info: 03LWHO59-HBIS H032401,[AL=0624C01,[DC=00]

Purge Volume: 5.0

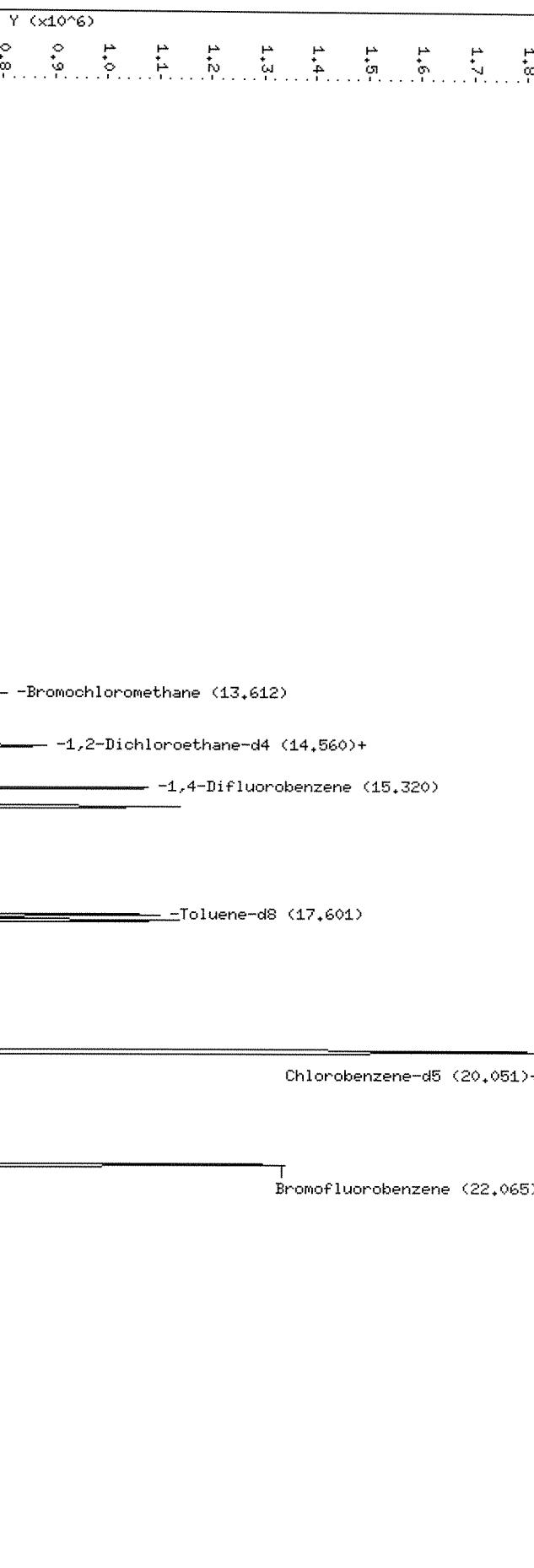
Column Phase: RTX-624

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Instrument #: 5972H.i  
Operator: MFS  
Column diameter: 0.53

/chem/msv0a3/5972h.i/h0324030.b/h032407.d



Lionville Laboratory Inc.

Data file : /chem/msvoa3/5972h.i/h032403o.b/h032407.d  
Lab Smp Id: 03LVH059-MB1S Client Smp ID: VBLKMUBS  
Inj Date : 24-MAR-03 11:19:00  
Operator : MFS Inst ID: 5972H.i  
Smp Info : 03LVH059-MB1S H032401, [AL=O624CO], [DC=00]  
Misc Info : DIL,1,CLP BS 5ML  
Comment :  
Method : /chem/msvoa3/5972h.i/h032403o.b/olm4.1w.m  
Meth Date : 26-Mar-03 10:32:50 rubinob Quant Type: ISTD  
Cal Date : 24-MAR-03 08:50:00 Cal File: h032403.d  
Als bottle: 7 QC Sample: BS  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: O624CO.sub  
Target Version: 3.30  
Processing Host: hp4920a

Concentration Formula: Uf/Vo

Name	Value	Description
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	( ug/L)	
* 1 Bromochloromethane	====	128	13.612	13.605	(1.000)	510736	50.0000	
* 2 1,4-Difluorobenzene	==	114	15.320	15.314	(1.000)	2131844	50.0000	
* 3 Chlorobenzene-d5	=====	117	20.021	20.015	(1.000)	1756914	50.0000	
\$ 4 1,2-Dichloroethane-d4	=====	65	14.619	14.603	(1.074)	888526	48.5330	
\$ 5 Toluene-d8	=====	98	17.601	17.585	(0.879)	1833358	51.1918	
\$ 6 Bromofluorobenzene	=====	95	22.065	22.059	(1.102)	1428073	47.2548	
68 Dichlorodifluoromethane	85.00		Compound Not Detected.					
7 Chloromethane	50.00		Compound Not Detected.					
8 Vinyl Chloride	62.00		Compound Not Detected.					
9 Bromomethane	94.00		Compound Not Detected.					
10 Chloroethane	64.00		Compound Not Detected.					
11 Trichlorofluoromethane	101.00		Compound Not Detected.					
14 1,1-Dichloroethene	96	9.128	9.102	(0.671)		620839	47.9115	47.911
65 Freon-113	151.00		Compound Not Detected.					
16 Acetone	43.00		Compound Not Detected.					
15 Carbon Disulfide	76.00		Compound Not Detected.					
69 Methyl Acetate	43.00		Compound Not Detected.					

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN ( ug/L)	FINAL ( ug/L)
17 Methylene Chloride	84		10.649	10.643 (0.782)		230631	13.4119	13.412
19 trans-1,2-Dichloroethene	96.00			Compound Not Detected.				
20 Methyl-T-Butylether	73.00			Compound Not Detected.				
23 1,1-Dichloroethane	63.00			Compound Not Detected.				
25 cis-1,2-Dichloroethene	96.00			Compound Not Detected.				
26 2-Butanone	43.00			Compound Not Detected.				
27 Chloroform	83.00			Compound Not Detected.				
28 1,1,1-Trichloroethane	97.00			Compound Not Detected.				
70 Cyclohexane	56.00			Compound Not Detected.				
29 Carbon Tetrachloride	117.00			Compound Not Detected.				
30 Benzene	78	14.560	14.544 (0.950)	1822038		50.3650	50.365	
31 1,2-Dichloroethane	62.00			Compound Not Detected.				
32 Trichloroethene	130	15.656	15.650 (1.022)	932133		51.1729	51.173	
71 Methylcyclohexane	83.00			Compound Not Detected.				
33 1,2-Dichloropropane	63.00			Compound Not Detected.				
34 Bromodichloromethane	83.00			Compound Not Detected.				
36 cis-1,3-Dichloropropene	75.00			Compound Not Detected.				
37 4-Methyl-2-Pentanone	43	17.700	17.516 (0.884)	26709		1.72751	1.728(a)	
38 Toluene	91	17.710	17.694 (0.885)	2102093		51.7190	51.719	
39 trans-1,3-Dichloropropene	75.00			Compound Not Detected.				
40 1,1,2-Trichloroethane	97.00			Compound Not Detected.				
41 Tetrachloroethene	164.00			Compound Not Detected.				
43 2-Hexanone	43.00			Compound Not Detected.				
42 Dibromochloromethane	129.00			Compound Not Detected.				
72 1,2-Dibromoethane	107.00			Compound Not Detected.				
44 Chlorobenzene	112	20.070	20.054 (1.002)	1795201		52.1358	52.136	
45 Ethylbenzene	106.00			Compound Not Detected.				
46 m & p-Xylene	106.00			Compound Not Detected.				
47 o-Xylene	106.00			Compound Not Detected.				
M 48 Xylenes (Total)	106.00			Compound Not Detected.				
49 Styrene	104.00			Compound Not Detected.				
50 Bromoform	173.00			Compound Not Detected.				
73 Isopropylbenzene	105.00			Compound Not Detected.				
51 1,1,2,2-Tetrachloroethane	83.00			Compound Not Detected.				
52 1,3-Dichlorobenzene	146.00			Compound Not Detected.				
53 1,4-Dichlorobenzene	146.00			Compound Not Detected.				
54 1,2-Dichlorobenzene	146.00			Compound Not Detected.				
74 1,2-Dibromo-3-Chloropropane	75.00			Compound Not Detected.				
75 1,2,4-Trichlorobenzene	180.00			Compound Not Detected.				

3/26/03

#### QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ) .

## VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKMX

Lab Name: Lionville Labs, Inc. Contract: 01667601001Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 03LVH061-MB1Sample wt/vol: 5.00 (g/mL) MLLab File ID: h032507Level: (low/med) LOWDate Received: 03/25/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/25/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

75-71-8-----	Dichlorodifluoromethane	10   U
74-87-3-----	Chloromethane	10   U
75-01-4-----	Vinyl Chloride	10   U
74-83-9-----	Bromomethane	10   U
75-00-3-----	Chloroethane	10   U
75-69-4-----	Trichlorofluoromethane	10   U
75-35-4-----	1,1-Dichloroethene	10   U
76-13-1-----	1,1,2-Trichlorotrifluoroethane	10   U
67-64-1-----	Acetone	10   U
75-15-0-----	Carbon Disulfide	10   U
79-20-9-----	Methyl Acetate	10   U
75-09-2-----	Methylene Chloride	13
156-60-5-----	Trans-1,2-dichloroethene	10   U
1634-04-4-----	tert-Butyl Methyl Ether	10   U
75-34-3-----	1,1-Dichloroethane	10   U
156-59-2-----	Cis-1,2-dichloroethene	10   U
78-93-3-----	2-Butanone	10   U
67-66-3-----	Chloroform	10   U
71-55-6-----	1,1,1-Trichloroethane	10   U
110-82-7-----	Cyclohexane	10   U
56-23-5-----	Carbon Tetrachloride	10   U
71-43-2-----	Benzene	10   U
107-06-2-----	1,2-Dichloroethane	10   U
79-01-6-----	Trichloroethene	10   U
108-87-2-----	Methylcyclohexane	10   U
78-87-5-----	1,2-Dichloropropane	10   U
75-27-4-----	Bromodichloromethane	10   U
10061-01-5-----	cis-1,3-Dichloropropene	10   U
108-10-1-----	4-Methyl-2-pentanone	10   U
108-88-3-----	Toluene	10   U
10061-02-6-----	Trans-1,3-Dichloropropene	10   U
79-00-5-----	1,1,2-Trichloroethane	10   U
127-18-4-----	Tetrachloroethene	10   U
591-78-6-----	2-Hexanone	10   U

## VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Lionville Labs, Inc. Contract: 01667601001

VBLKMX

Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 03LVH061-MB1Sample wt/vol: 5.00 (g/mL) MLLab File ID: h032507Level: (low/med) LOWDate Received: 03/25/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/25/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
---------	----------	---	---

124-48-1-----	Dibromochloromethane	10   U	
106-93-4-----	1,2-Dibromoethane	10   U	
108-90-7-----	Chlorobenzene	10   U	
100-41-4-----	Ethylbenzene	10   U	
1330-20-7-----	Xylene (total)	10   U	
100-42-5-----	Styrene	10   U	
75-25-2-----	Bromoform	10   U	
98-82-8-----	Isopropylbenzene	10   U	
79-34-5-----	1,1,2,2-Tetrachloroethane	10   U	
541-73-1-----	1,3-Dichlorobenzene	10   U	
106-46-7-----	1,4-Dichlorobenzene	10   U	
95-50-1-----	1,2-Dichlorobenzene	10   U	
96-12-8-----	1,2-Dibromo-3-chloropropane	10   U	
120-82-1-----	1,2,4-Trichlorobenzene	10   U	

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Lionville Labs, Inc. Contract: 01667601001

VBLKMX

Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATER

Lab Sample ID: 03LVH061-MB1

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: h032507

Level: (low/med) LOW

Date Received: 03/25/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/25/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

Data File: /chem/msv0a3/5972h.i/h032503o.b/h032507.d

Date : 25-MAR-03 14:19:00

Client ID: VBLKMK

Sample Info: 03LW061-MBL H032501,[AL=0624C01],[NC=00]

Purge Volume: 5.0

Column phase: RTX-624

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Y ( $\times 10^6$ )

1.1  
1.0  
0.9  
0.8  
0.7  
0.6  
0.5  
0.4  
0.3  
0.2  
0.1

/chem/msv0a3/5972h.i/h032503o.b/h032507.d

Instrument: 5972H.i

Operator: MFS

Column diameter: 0.53

-Bromochloromethane (13,603)

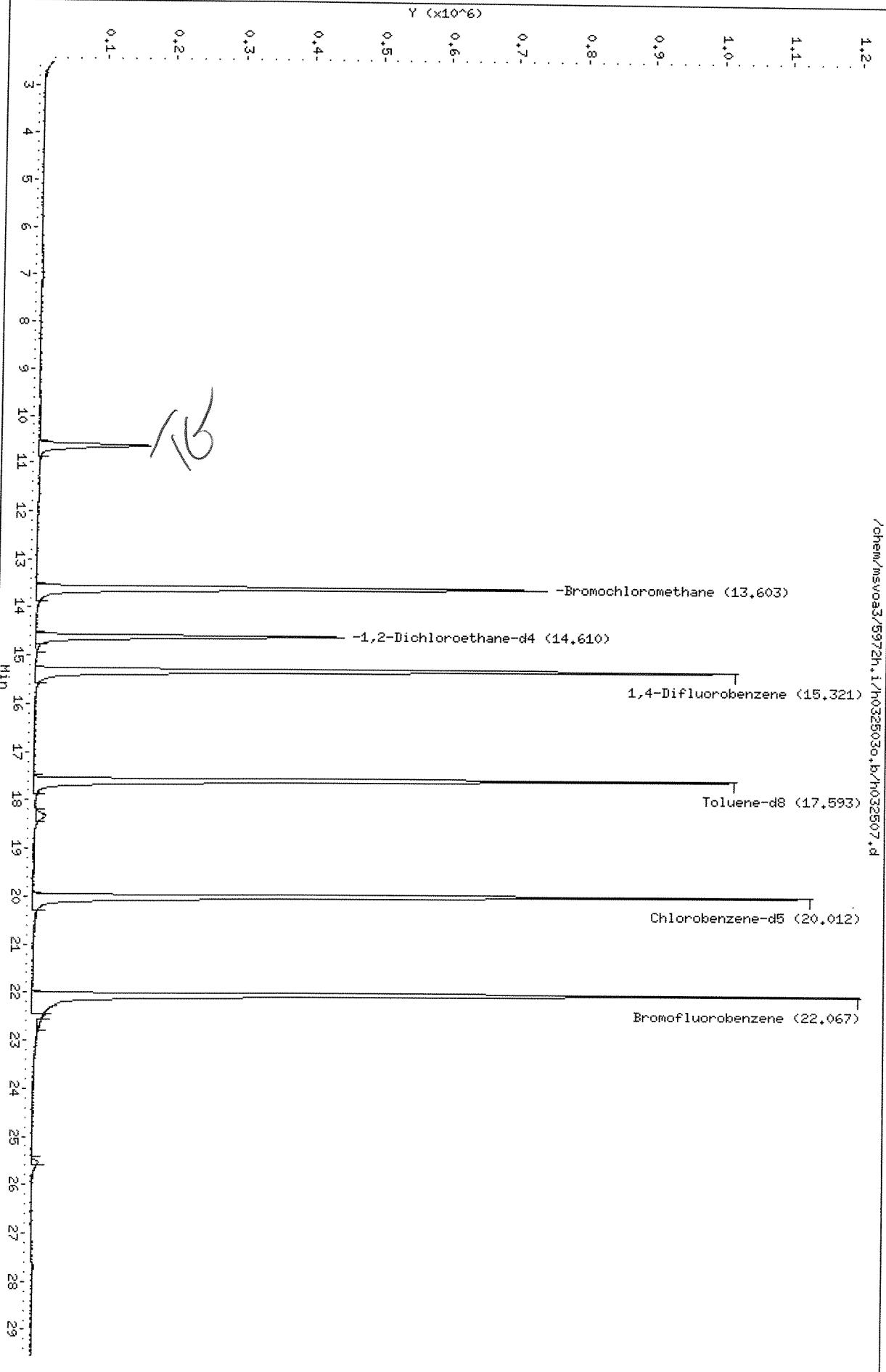
-1,2-Dichloroethane-d4 (14,610)

1,4-Difluorobenzene (15,321)

Toluene-d8 (17,593)

Chlorobenzene-d5 (20,012)

Bromofluorobenzene (22,067)



Lionville Laboratory Inc.

Data file : /chem/msvoa3/5972h.i/h032503o.b/h032507.d  
Lab Smp Id: 03LVH061-MB1 Client Smp ID: VBLKMX  
Inj Date : 25-MAR-03 11:19:00  
Operator : MFS Inst ID: 5972H.i  
Smp Info : 03LVH061-MB1 H032501, [AL=0624CO], [DC=00]  
Misc Info : DIL,1,VBLK 5ML  
Comment :  
Method : /chem/msvoa3/5972h.i/h032503o.b/olm4.1w.m  
Meth Date : 26-Mar-03 10:34:08 rubinob Quant Type: ISTD  
Cal Date : 25-MAR-03 07:44:00 Cal File: h032502.d  
Als bottle: 7 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: O624CO.sub  
Target Version: 3.30  
Processing Host: hp4920a

Concentration Formula: Uf/Vo

Name	Value	Description
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	( ug/L)	
*	1 Bromochloromethane	128	13.603	13.602	(1.000)	489532	50.0000	
*	2 1,4-Difluorobenzene	114	15.321	15.321	(1.000)	2081393	50.0000	
*	3 Chlorobenzene-d5	117	20.012	20.012	(1.000)	1685340	50.0000	
\$	4 1,2-Dichloroethane-d4	65	14.610	14.610	(1.074)	781479	46.9799	
\$	5 Toluene-d8	98	17.593	17.592	(0.879)	1723499	53.1784	
\$	6 Bromofluorobenzene	95	22.057	22.056	(1.102)	1268119	45.8343	
68	Dichlorodifluoromethane	85.00	Compound Not Detected.					
7	Chloromethane	50.00	Compound Not Detected.					
8	Vinyl Chloride	62.00	Compound Not Detected.					
9	Bromomethane	94.00	Compound Not Detected.					
10	Chloroethane	64.00	Compound Not Detected.					
11	Trichlorofluoromethane	101.00	Compound Not Detected.					
14	1,1-Dichloroethene	96.00	Compound Not Detected.					
65	Freon-113	151.00	Compound Not Detected.					
16	Acetone	43	9.692	9.691	(0.713)	2766	1.02108	1.021(a)
15	Carbon Disulfide	76.00	Compound Not Detected.					
69	Methyl Acetate	43.00	Compound Not Detected.					

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN ( ug/L)	FINAL ( ug/L)
17 Methylene Chloride	84	10.640	10.639	(0.782)		212866	13.1563	13.156
19 trans-1,2-Dichloroethene	96.00					Compound Not Detected.		
20 Methyl-T-Butylether	73.00					Compound Not Detected.		
23 1,1-Dichloroethane	63.00					Compound Not Detected.		
25 cis-1,2-Dichloroethene	96.00					Compound Not Detected.		
26 2-Butanone	43.00					Compound Not Detected.		
27 Chloroform	83.00					Compound Not Detected.		
28 1,1,1-Trichloroethane	97.00					Compound Not Detected.		
70 Cyclohexane	56.00					Compound Not Detected.		
29 Carbon Tetrachloride	117.00					Compound Not Detected.		
30 Benzene	78.00					Compound Not Detected.		
31 1,2-Dichloroethane	62.00					Compound Not Detected.		
32 Trichloroethene	130.00					Compound Not Detected.		
71 Methylcyclohexane	83.00					Compound Not Detected.		
33 1,2-Dichloropropane	63.00					Compound Not Detected.		
34 Bromodichloromethane	83.00					Compound Not Detected.		
36 cis-1,3-Dichloropropene	75.00					Compound Not Detected.		
37 4-Methyl-2-Pentanone	43.00					Compound Not Detected.		
38 Toluene	91.00					Compound Not Detected.		
39 trans-1,3-Dichloropropene	75.00					Compound Not Detected.		
40 1,1,2-Trichloroethane	97.00					Compound Not Detected.		
41 Tetrachloroethene	164.00					Compound Not Detected.		
43 2-Hexanone	43.00					Compound Not Detected.		
42 Dibromochloromethane	129.00					Compound Not Detected.		
72 1,2-Dibromoethane	107.00					Compound Not Detected.		
44 Chlorobenzene	112.00					Compound Not Detected.		
45 Ethylbenzene	106.00					Compound Not Detected.		
46 m & p-Xylene	106.00					Compound Not Detected.		
47 o-Xylene	106.00					Compound Not Detected.		
M 48 Xylenes (Total)	106.00					Compound Not Detected.		
49 Styrene	104.00					Compound Not Detected.		
50 Bromoform	173.00					Compound Not Detected.		
73 Isopropylbenzene	105.00					Compound Not Detected.		
51 1,1,2,2-Tetrachloroethane	83.00					Compound Not Detected.		
52 1,3-Dichlorobenzene	146.00					Compound Not Detected.		
53 1,4-Dichlorobenzene	146.00					Compound Not Detected.		
54 1,2-Dichlorobenzene	146.00					Compound Not Detected.		
74 1,2-Dibromo-3-Chloropropane	75.00					Compound Not Detected.		
75 1,2,4-Trichlorobenzene	180.00					Compound Not Detected.		

3/26/03

#### QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ) .

Date : 25-MAR-03 11:19:00

Client ID: VBLKMX

Instrument: 5972H,i

Sample Info: 03LVH061-MB1 H032501,[IAL=0624C01],[DC=00]

Purge Volume: 5.0

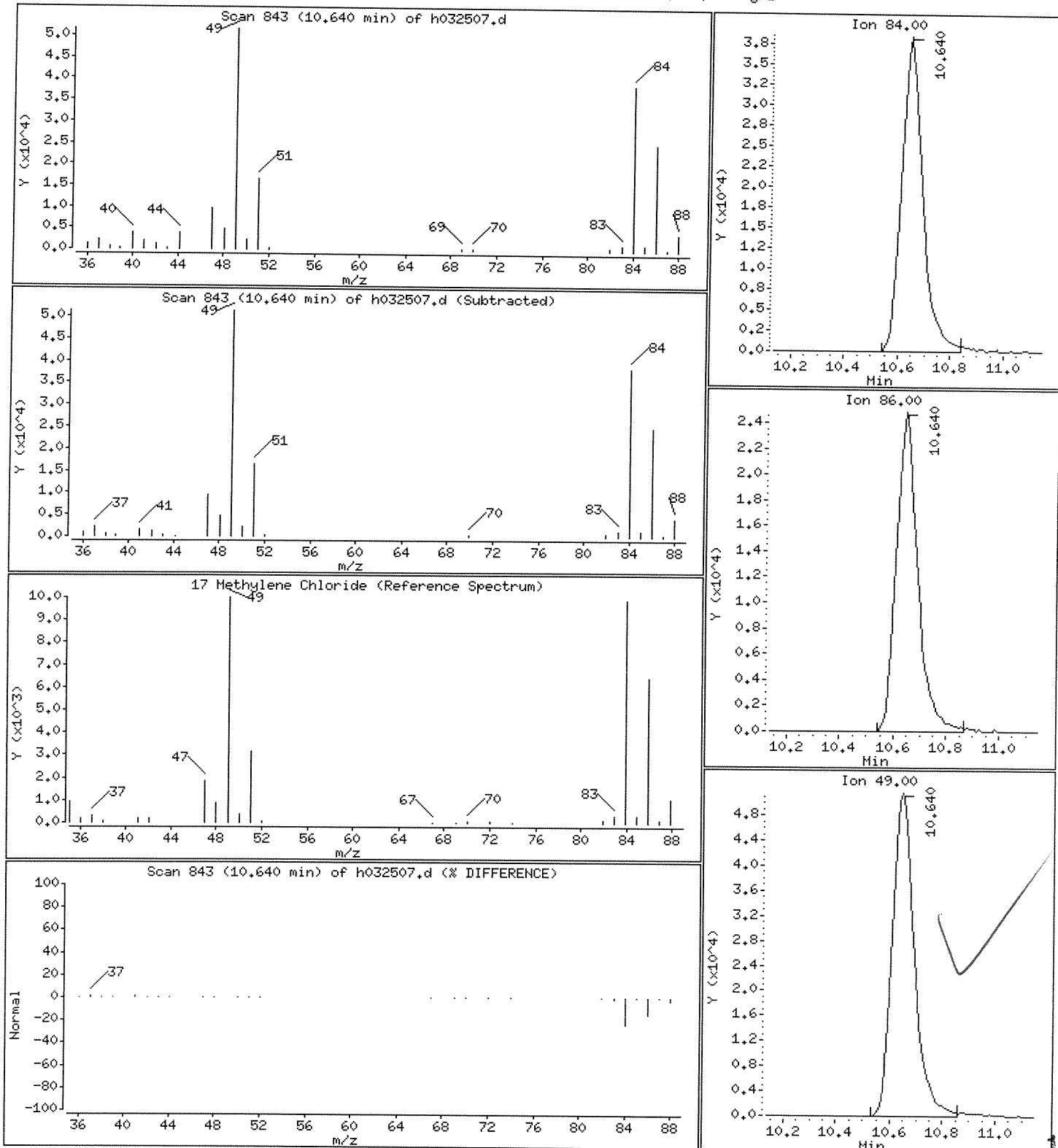
Operator: MFS

Column phase: RTX-624

Column diameter: 0.53

## 17 Methylene Chloride

Concentration: 13.156 ug/L



## VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Lionville Labs, Inc. Contract: 01667601001

VBLKMXMS

Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 03LVH061-MB1 BSSample wt/vol: 5.00 (g/mL) MLLab File ID: h032506Level: (low/med) LOWDate Received: 03/25/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/25/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

75-71-8-----	Dichlorodifluoromethane	10   U
74-87-3-----	Chloromethane	10   U
75-01-4-----	Vinyl Chloride	10   U
74-83-9-----	Bromomethane	10   U
75-00-3-----	Chloroethane	10   U
75-69-4-----	Trichlorofluoromethane	10   U
75-35-4-----	1,1-Dichloroethene	44   Z
76-13-1-----	1,1,2-Trichlorotrifluoroethane	10   U
67-64-1-----	Acetone	10   U
75-15-0-----	Carbon Disulfide	10   U
79-20-9-----	Methyl Acetate	10   U
75-09-2-----	Methylene Chloride	13   B
156-60-5-----	Trans-1,2-dichloroethene	10   U
1634-04-4-----	tert-Butyl Methyl Ether	10   U
75-34-3-----	1,1-Dichloroethane	10   U
156-59-2-----	Cis-1,2-dichloroethene	10   U
78-93-3-----	2-Butanone	10   U
67-66-3-----	Chloroform	10   U
71-55-6-----	1,1,1-Trichloroethane	10   U
110-82-7-----	Cyclohexane	10   U
56-23-5-----	Carbon Tetrachloride	10   U
71-43-2-----	Benzene	47   Z
107-06-2-----	1,2-Dichloroethane	10   U
79-01-6-----	Trichloroethene	48   Z
108-87-2-----	Methylcyclohexane	10   U
78-87-5-----	1,2-Dichloropropane	10   U
75-27-4-----	Bromodichloromethane	10   U
10061-01-5-----	cis-1,3-Dichloropropene	10   U
108-10-1-----	4-Methyl-2-pentanone	10   U
108-88-3-----	Toluene	49   Z
10061-02-6-----	Trans-1,3-Dichloropropene	10   U
79-00-5-----	1,1,2-Trichloroethane	10   U
127-18-4-----	Tetrachloroethene	10   U
591-78-6-----	2-Hexanone	10   U

VBLKMXMS

Lab Name: Lionville Labs, Inc. Contract: 01667601001Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 03LVH061-MB1 BSSample wt/vol: 5.00 (g/mL) MLLab File ID: h032506Level: (low/med) LOWDate Received: 03/25/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/25/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) ug/L

Q

124-48-1-----Dibromochloromethane	10	U
106-93-4-----1,2-Dibromoethane	10	U
108-90-7-----Chlorobenzene	49	Z
100-41-4-----Ethylbenzene	10	U
1330-20-7-----Xylene (total)	10	U
100-42-5-----Styrene	10	U
75-25-2-----Bromoform	10	U
98-82-8-----Isopropylbenzene	10	U
79-34-5-----1,1,2,2-Tetrachloroethane	10	U
541-73-1-----1,3-Dichlorobenzene	10	U
106-46-7-----1,4-Dichlorobenzene	10	U
95-50-1-----1,2-Dichlorobenzene	10	U
96-12-8-----1,2-Dibromo-3-chloropropane	10	U
120-82-1-----1,2,4-Trichlorobenzene	10	U

Z: SPIKE COMPOUND

FORM 1 V-2

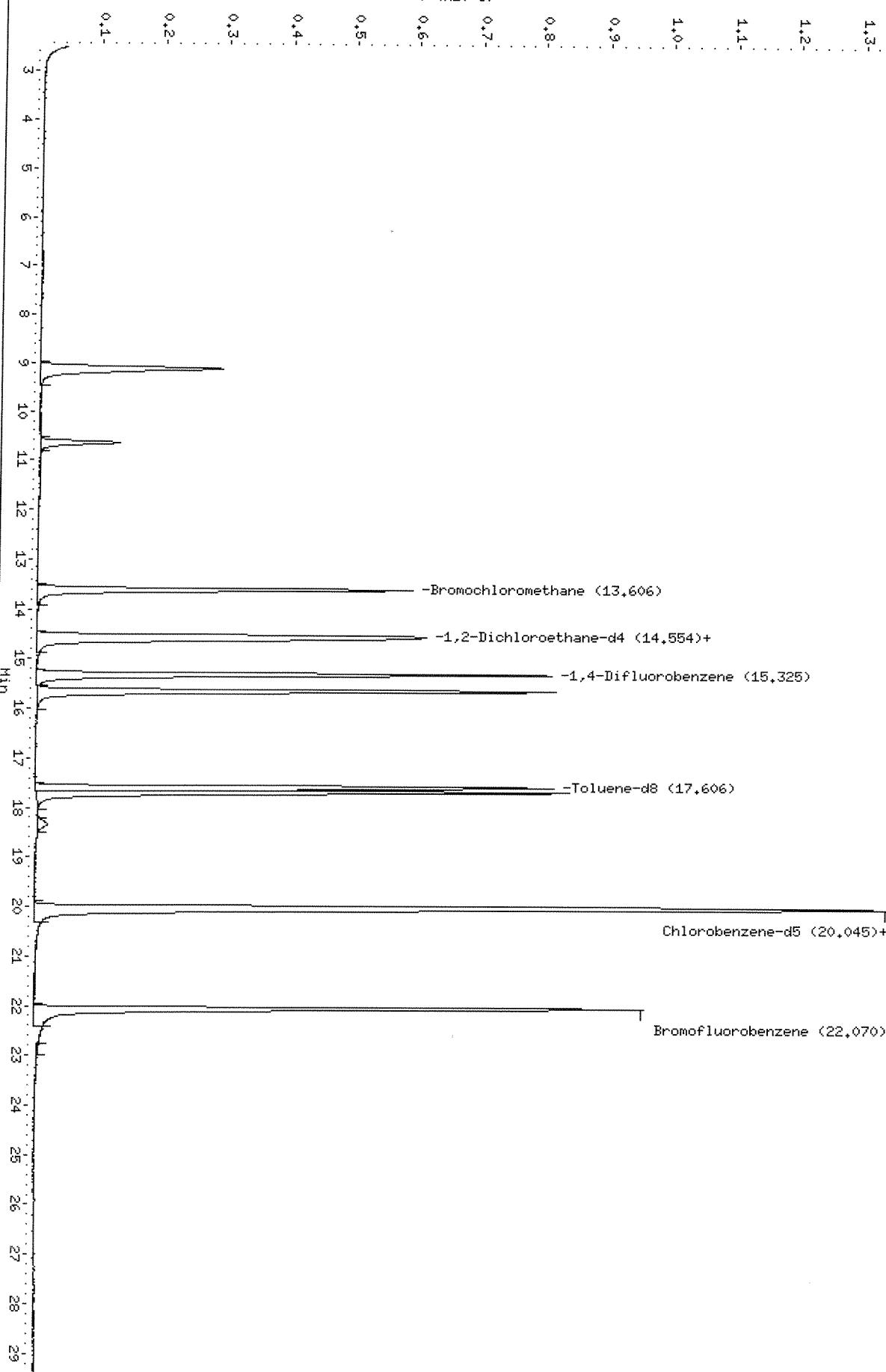
3/90

Data File: /chem/msv0a3/5972h.i/h032503o.b/h032506.d  
 Date : 25-MAR-03 10:17:00  
 Client ID: VBLKHKBS  
 Sample Info: 03LWH61-HBLS H032501,[AL=0624C01],LDC=00  
 Purge Volume: 5.0  
 Column Phase: RTX-624

Instrument: 5972H.i  
 Operator: MFS  
 Column diameter: 0.53

/chem/msv0a3/5972h.i/h032503o.b/h032506.d

Y ( $\times 10^6$ )



Lionville Laboratory Inc.

Data file : /chem/msvoa3/5972h.i/h032503o.b/h032506.d  
Lab Smp Id: 03LVH061-MB1S Client Smp ID: VBLKMXBS  
Inj Date : 25-MAR-03 10:17:00  
Operator : MFS Inst ID: 5972H.i  
Smp Info : 03LVH061-MB1S H032501, [AL=0624CO], [DC=00]  
Misc Info : DIL,1,BS 5ML  
Comment :  
Method : /chem/msvoa3/5972h.i/h032503o.b/olm4.1w.m  
Meth Date : 26-Mar-03 10:34:08 rubinob Quant Type: ISTD  
Cal Date : 25-MAR-03 07:44:00 Cal File: h032502.d  
Als bottle: 5 QC Sample: BS  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 0624CO.sub  
Target Version: 3.30  
Processing Host: hp4920a

Concentration Formula: Uf/Vo

Name	Value	Description
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	( ug/L)
* 1 Bromochloromethane	====	128	13.606	13.602	(1.000)	387356	50.0000
* 2 1,4-Difluorobenzene	==	114	15.325	15.321	(1.000)	1631753	50.0000
* 3 Chlorobenzene-d5	=====	117	20.026	20.012	(1.000)	1362408	50.0000
\$ 4 1,2-Dichloroethane-d4	=====	65	14.614	14.610	(1.074)	629835	47.8511
\$ 5 Toluene-d8	=====	98	17.596	17.592	(0.879)	1377198	52.5655
\$ 6 Bromofluorobenzene	=====	95	22.070	22.056	(1.102)	1043301	46.6467
68 Dichlorodifluoromethane	85.00		Compound Not Detected.				
7 Chloromethane	50.00		Compound Not Detected.				
8 Vinyl Chloride	62.00		Compound Not Detected.				
9 Bromomethane	94.00		Compound Not Detected.				
10 Chloroethane	64.00		Compound Not Detected.				
11 Trichlorofluoromethane	101.00		Compound Not Detected.				
14 1,1-Dichloroethene	96	9.113	9.109	(0.670)		424942	44.2518
65 Freon-113	151.00		Compound Not Detected.				
16 Acetone	43.00		Compound Not Detected.				
15 Carbon Disulfide	76.00		Compound Not Detected.				
69 Methyl Acetate	43.00		Compound Not Detected.				

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
17 Methylene Chloride	84	10.644	10.639 (0.782)			170989	13.3556	13.356 ✓
19 trans-1,2-Dichloroethene	96.00							
20 Methyl-T-Butylether	73.00							
23 1,1-Dichloroethane	63.00							
25 cis-1,2-Dichloroethene	96.00							
26 2-Butanone	43.00							
27 Chloroform	83.00							
28 1,1,1-Trichloroethane	97.00							
70 Cyclohexane	56.00							
29 Carbon Tetrachloride	117.00							
30 Benzene	78	14.554	14.550 (0.950)			1299463	46.6525	46.652 ✓
31 1,2-Dichloroethane	62.00							
32 Trichloroethene	130	15.660	15.656 (1.022)			696181	47.7626	47.762 ✓
71 Methylcyclohexane	83.00							
33 1,2-Dichloropropane	63.00							
34 Bromodichloromethane	83.00							
36 cis-1,3-Dichloropropene	75.00							
37 4-Methyl-2-Pentanone	43	17.695	17.523 (0.884)			10512	0.95694	0.9569 (a) X
38 Toluene	91	17.705	17.701 (0.884)			1548629	49.2626	49.262 ✓
39 trans-1,3-Dichloropropene	75.00							
40 1,1,2-Trichloroethane	97.00							
41 Tetrachloroethene	164.00							
43 2-Hexanone	43.00							
42 Dibromochloromethane	129.00							
72 1,2-Dibromoethane	107.00							
44 Chlorobenzene	112	20.065	20.061 (1.002)			1320749	49.3755	49.376 ✓
45 Ethylbenzene	106.00							
46 m & p-Xylene	106.00							
47 o-Xylene	106.00							
M 48 Xylenes (Total)	106.00							
49 Styrene	104.00							
50 Bromoform	173.00							
73 Isopropylbenzene	105.00							
51 1,1,2,2-Tetrachloroethane	83.00							
52 1,3-Dichlorobenzene	146.00							
53 1,4-Dichlorobenzene	146.00							
54 1,2-Dichlorobenzene	146.00							
74 1,2-Dibromo-3-Chloropropane	75.00							
75 1,2,4-Trichlorobenzene	180.00							

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

B  
3/26/03

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SH102-0317-D00703MS

Lab Name: Lionville Labs, Inc. Contract: 01667601001

Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATER

Lab Sample ID: 0303L980-005 MS

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: h032419

Level: (low/med) LOW

Date Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) <u>ug/L</u>	Q
75-71-8-----	Dichlorodifluoromethane	10   U	
74-87-3-----	Chloromethane	10   U	
75-01-4-----	Vinyl Chloride	10   U	
74-83-9-----	Bromomethane	10   U	
75-00-3-----	Chloroethane	10   U	
75-69-4-----	Trichlorofluoromethane	10   U	
75-35-4-----	1,1-Dichloroethene	45   Z	
76-13-1-----	1,1,2-Trichlorotrifluoroethane	10   U	
67-64-1-----	Acetone	10   U	
75-15-0-----	Carbon Disulfide	10   U	
79-20-9-----	Methyl Acetate	10   U	
75-09-2-----	Methylene Chloride	5   JB	
156-60-5-----	Trans-1,2-dichloroethene	10   U	
1634-04-4-----	tert-Butyl Methyl Ether	3   J	
75-34-3-----	1,1-Dichloroethane	10   U	
156-59-2-----	Cis-1,2-dichloroethene	10   U	
78-93-3-----	2-Butanone	10   U	
67-66-3-----	Chloroform	10   U	
71-55-6-----	1,1,1-Trichloroethane	1   J	
110-82-7-----	Cyclohexane	10   U	
56-23-5-----	Carbon Tetrachloride	10   U	
71-43-2-----	Benzene	49   Z	
107-06-2-----	1,2-Dichloroethane	10   U	
79-01-6-----	Trichloroethene	51   Z	
108-87-2-----	Methylcyclohexane	10   U	
78-87-5-----	1,2-Dichloropropane	10   U	
75-27-4-----	Bromodichloromethane	10   U	
10061-01-5-----	cis-1,3-Dichloropropene	10   U	
108-10-1-----	4-Methyl-2-pentanone	10   U	
108-88-3-----	Toluene	50   Z	
10061-02-6-----	Trans-1,3-Dichloropropene	10   U	
79-00-5-----	1,1,2-Trichloroethane	10   U	
127-18-4-----	Tetrachloroethene	1   J	
591-78-6-----	2-Hexanone	10   U	

## VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SH102-0317-D00703MS

Lab Name: Lionville Labs, Inc. Contract: 01667601001Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 0303L980-005 MSSample wt/vol: 5.00 (g/mL) MLLab File ID: h032419Level: (low/med) LOWDate Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) ug/L

Q

124-48-1-----Dibromochloromethane	10	U
106-93-4-----1,2-Dibromoethane	10	U
108-90-7-----Chlorobenzene	51	Z
100-41-4-----Ethylbenzene	10	U
1330-20-7-----Xylene (total)	10	U
100-42-5-----Styrene	10	U
75-25-2-----Bromoform	10	U
98-82-8-----Isopropylbenzene	10	U
79-34-5-----1,1,2,2-Tetrachloroethane	10	U
541-73-1-----1,3-Dichlorobenzene	10	U
106-46-7-----1,4-Dichlorobenzene	10	U
95-50-1-----1,2-Dichlorobenzene	10	U
96-12-8-----1,2-Dibromo-3-chloropropane	10	U
120-82-1-----1,2,4-Trichlorobenzene	10	U

Z: SPIKE COMPOUND

FORM 1 V-2

3/90

Data File: /chem/msvoa3/5972h.i/h032403o.b/h032419.d

Date : 24-MAR-03 18:35:00

Client ID: SH102-0317-D00703MS

Sample Info: 0303L980-005S H032401,[CAL=0624001],[DC=00]

Purge Volume: 5.0

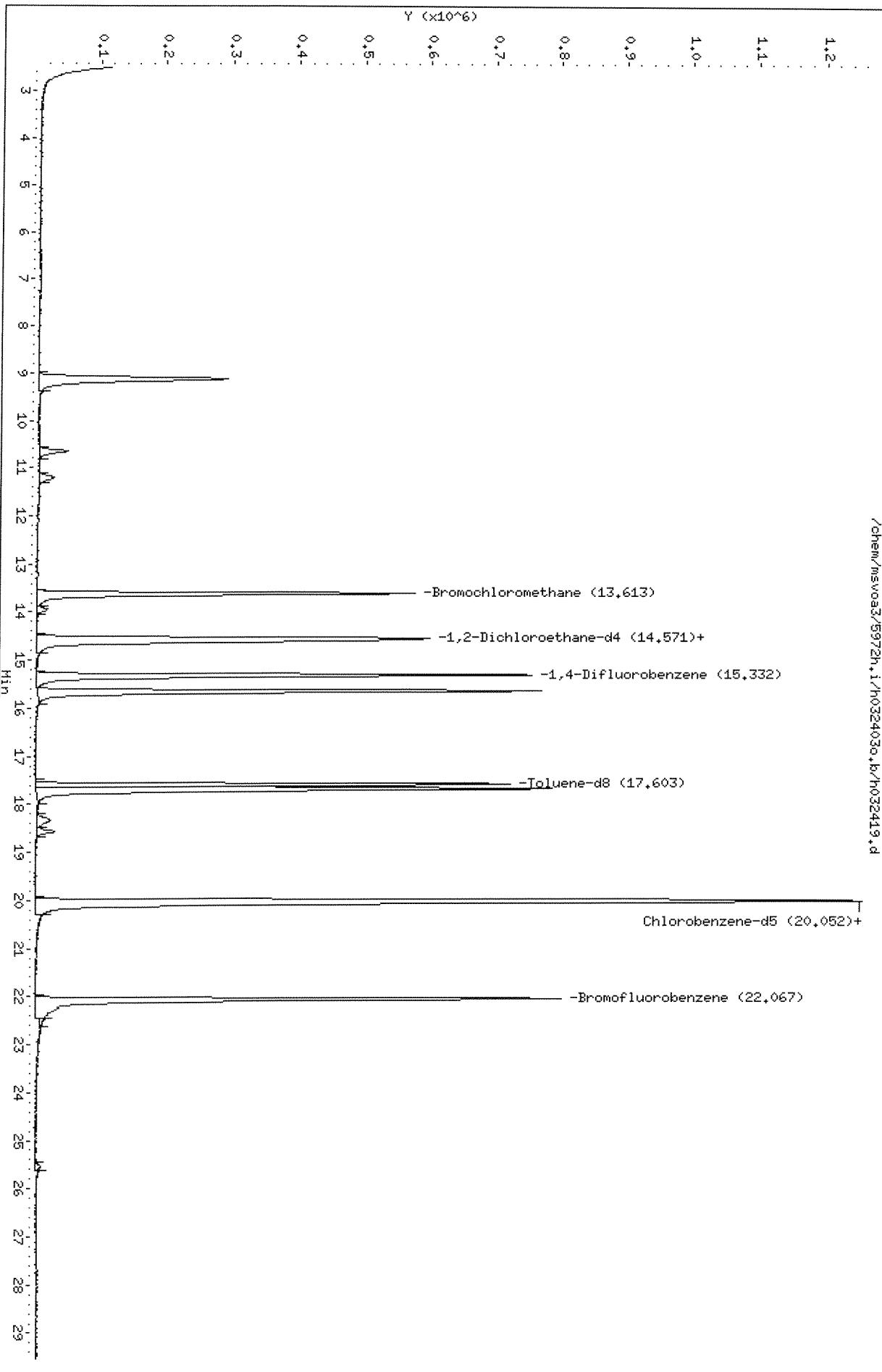
Column Phase: RTX-624

Instrument: 5972H.i

Operator: MFS

Column diameter: 0.53

/chem/msvoa3/5972h.i/h032403o.b/h032419.d



Lionville Laboratory Inc.

Data file : /chem/msvoa3/5972h.i/h032403o.b/h032419.d  
Lab Smp Id: 0303L980-005S Client Smp ID: SH102-0317-D00703MS  
Inj Date : 24-MAR-03 18:35:00  
Operator : MFS Inst ID: 5972H.i  
Smp Info : 0303L980-005S H032401, [AL=O624CO], [DC=00]  
Misc Info : DIL,1,WSRC 5ML  
Comment :  
Method : /chem/msvoa3/5972h.i/h032403o.b/olm4.lw.m ✓  
Meth Date : 26-Mar-03 10:32:50 rubinob Quant Type: ISTD  
Cal Date : 24-MAR-03 08:50:00 Cal File: h032403.d  
Als bottle: 6 QC Sample: MS  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: O624CO.sub ✓  
Target Version: 3.30  
Processing Host: hp4920a

Concentration Formula: Uf/Vo

Name	Value	Description
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	( ug/L)
* 1 Bromochloromethane	====	128	13.623	13.605 (1.000)	368249	50.0000	
* 2 1,4-Difluorobenzene	====	114	15.332	15.314 (1.000)	1493417	50.0000	
* 3 Chlorobenzene-d5	====	117	20.023	20.015 (1.000)	1239483	50.0000	
\$ 4 1,2-Dichloroethane-d4	====	65	14.621	14.603 (1.073)	581146	44.0258	44.026
\$ 5 Toluene-d8	====	98	17.603	17.585 (0.879)	1191131	47.1436	47.144
\$ 6 Bromofluorobenzene	====	95	22.067	22.059 (1.102)	848000	39.7742	39.774
68 Dichlorodifluoromethane	85.00			Compound Not Detected.			
7 Chloromethane	50.00			Compound Not Detected.			
8 Vinyl Chloride	62.00			Compound Not Detected.			
9 Bromomethane	94.00			Compound Not Detected.			
10 Chloroethane	64.00			Compound Not Detected.			
11 Trichlorofluoromethane	101.00			Compound Not Detected.			
14 1,1-Dichloroethene	96	9.120	9.102 (0.669)	416436	44.5722	44.572	✓
65 Freon-113	151.00			Compound Not Detected.			
16 Acetone	43.00			Compound Not Detected.			
15 Carbon Disulfide	76.00			Compound Not Detected.			
69 Methyl Acetate	43.00			Compound Not Detected.			

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
17 Methylene Chloride	84	10.660	10.643 (0.783)			56744	4.57665	4.577(a) ✓
19 trans-1,2-Dichloroethene	96.00					Compound Not Detected.		
20 Methyl-T-Butylether	73	11.204	11.186 (0.822)			68584	3.48281	3.483(a) ✓
23 1,1-Dichloroethane	63.00					Compound Not Detected.		
25 cis-1,2-Dichloroethene	96.00					Compound Not Detected.		
26 2-Butanone	43.00					Compound Not Detected.		
27 Chloroform	83.00					Compound Not Detected.		
28 1,1,1-Trichloroethane	97	13.939	13.931 (0.909)			25216	1.20697	1.207(a) ✓
70 Cyclohexane	56.00					Compound Not Detected.		
29 Carbon Tetrachloride	117.00					Compound Not Detected.		
30 Benzene	78	14.561	14.544 (0.950)			1237713	48.8389	48.839 ✓
31 1,2-Dichloroethane	62.00					Compound Not Detected.		
32 Trichloroethene	130	15.667	15.650 (1.022)			644861	50.5362	50.536 ✓
71 Methylcyclohexane	83.00					Compound Not Detected.		
33 1,2-Dichloropropane	63.00					Compound Not Detected.		
34 Bromodichloromethane	83.00					Compound Not Detected.		
36 cis-1,3-Dichloropropene	75.00					Compound Not Detected.		
37 4-Methyl-2-Pentanone	43	17.722	17.516 (0.885)			16831	1.54306	1.543(a) +
38 Toluene	91	17.712	17.694 (0.885)			1437715	50.1396	50.140 ✓
39 trans-1,3-Dichloropropene	75.00					Compound Not Detected.		
40 1,1,2-Trichloroethane	97.00					Compound Not Detected.		
41 Tetrachloroethene	164	18.561	18.543 (0.927)			16331	1.38721	1.387(a) ✓
43 2-Hexanone	43.00					Compound Not Detected.		
42 Dibromochloromethane	129.00					Compound Not Detected.		
72 1,2-Dibromoethane	107.00					Compound Not Detected.		
44 Chlorobenzene	112	20.072	20.054 (1.002)			1227001	50.5101	50.510 ✓
45 Ethylbenzene	106.00					Compound Not Detected.		
46 m & p-Xylene	106.00					Compound Not Detected.		
47 o-Xylene	106.00					Compound Not Detected.		
M 48 Xylenes (Total)	106.00					Compound Not Detected.		
49 Styrene	104.00					Compound Not Detected.		
50 Bromoform	173.00					Compound Not Detected.		
73 Isopropylbenzene	105.00					Compound Not Detected.		
51 1,1,2,2-Tetrachloroethane	83.00					Compound Not Detected.		
52 1,3-Dichlorobenzene	146.00					Compound Not Detected.		
53 1,4-Dichlorobenzene	146.00					Compound Not Detected.		
54 1,2-Dichlorobenzene	146.00					Compound Not Detected.		
74 1,2-Dibromo-3-Chloropropane	75.00					Compound Not Detected.		
75 1,2,4-Trichlorobenzene	180.00					Compound Not Detected.		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

B  
3/26/03

## VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Lionville Labs, Inc. Contract: 01667601001

SH102-0317-D00703MSD

Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 0303L980-005 MSDSample wt/vol: 5.00 (g/mL) MLLab File ID: h032420Level: (low/med) LOWDate Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) <u>ug/L</u>	Q
75-71-8-----	Dichlorodifluoromethane	10	U
74-87-3-----	Chloromethane	10	U
75-01-4-----	Vinyl Chloride	10	U
74-83-9-----	Bromomethane	10	U
75-00-3-----	Chloroethane	10	U
75-69-4-----	Trichlorofluoromethane	10	U
75-35-4-----	1,1-Dichloroethene	45	Z
76-13-1-----	1,1,2-Trichlorotrifluoroethane	10	U
67-64-1-----	Acetone	10	U
75-15-0-----	Carbon Disulfide	10	U
79-20-9-----	Methyl Acetate	10	U
75-09-2-----	Methylene Chloride	5	JB
156-60-5-----	Trans-1,2-dichloroethene	10	U
1634-04-4-----	tert-Butyl Methyl Ether	4	J
75-34-3-----	1,1-Dichloroethane	10	U
156-59-2-----	Cis-1,2-dichloroethene	10	U
78-93-3-----	2-Butanone	10	U
67-66-3-----	Chloroform	10	U
71-55-6-----	1,1,1-Trichloroethane	1	J
110-82-7-----	Cyclohexane	10	U
56-23-5-----	Carbon Tetrachloride	10	U
71-43-2-----	Benzene	50	Z
107-06-2-----	1,2-Dichloroethane	10	U
79-01-6-----	Trichloroethene	52	Z
108-87-2-----	Methylcyclohexane	10	U
78-87-5-----	1,2-Dichloropropane	10	U
75-27-4-----	Bromodichloromethane	10	U
10061-01-5-----	cis-1,3-Dichloropropene	10	U
108-10-1-----	4-Methyl-2-pentanone	10	U
108-88-3-----	Toluene	51	Z
10061-02-6-----	Trans-1,3-Dichloropropene	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
127-18-4-----	Tetrachloroethene	1	J
591-78-6-----	2-Hexanone	10	U

## VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Lionville Labs, Inc. Contract: 01667601001

SH102-0317-D00703MSD

Lab Code: Lionvi Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: 0303L980-005 MSDSample wt/vol: 5.00 (g/mL) MLLab File ID: h032420Level: (low/med) LOWDate Received: 03/19/03

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/24/03

GC Column: ID: \_\_\_\_\_ (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) ug/L

Q

124-48-1-----Dibromochloromethane	10   U
106-93-4-----1,2-Dibromoethane	10   U
108-90-7-----Chlorobenzene	52   Z
100-41-4-----Ethylbenzene	10   U
1330-20-7-----Xylene (total)	10   U
100-42-5-----Styrene	10   U
75-25-2-----Bromoform	10   U
98-82-8-----Isopropylbenzene	10   U
79-34-5-----1,1,2,2-Tetrachloroethane	10   U
541-73-1-----1,3-Dichlorobenzene	10   U
106-46-7-----1,4-Dichlorobenzene	10   U
95-50-1-----1,2-Dichlorobenzene	10   U
96-12-8-----1,2-Dibromo-3-chloropropane	10   U
120-82-1-----1,2,4-Trichlorobenzene	10   U

Z: SPIKE COMPOUND

FORM 1 V-2

3/90

Data File: /chem/mswoa3/5972h.i/h032403o.b/h032420.d

Date : 24-MAR-03 19:11:00

Client ID: SH102-0317-D00703MS

Sample Info: 0303L980-0051 H032401,[AL=0624001],[DC=00]

Purge Volume: 5.0

Column Phase: RTX-624

Page 4

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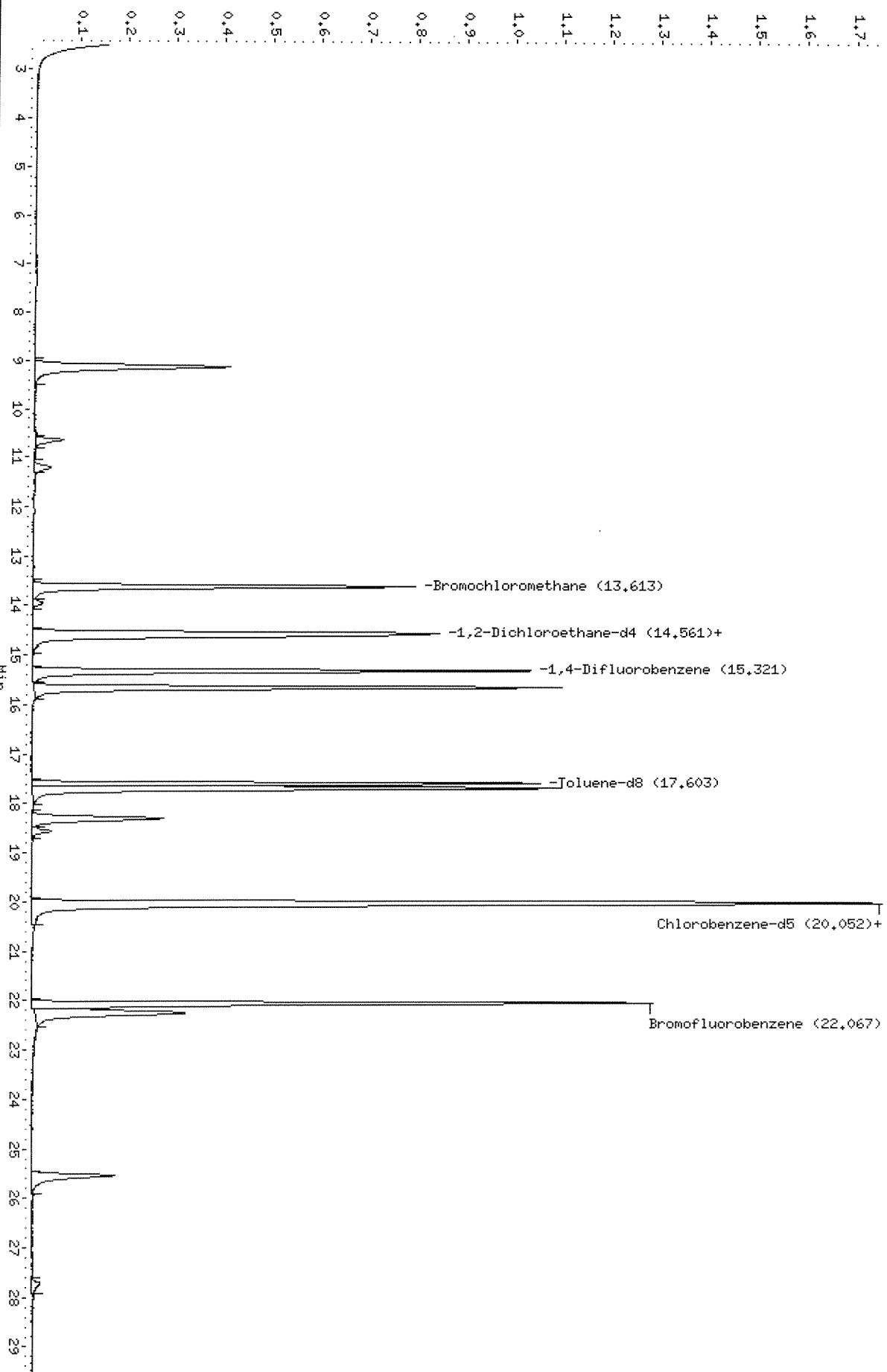
/chem/mswoa3/5972h.i/h032403o.b/h032420.d

Instrument: 5972H.i

Operator: MFS

Column diameter: 0.53

Y (x10<sup>6</sup>)



Lionville Laboratory Inc.

Data file : /chem/msvoa3/5972h.i/h032403o.b/h032420.d  
Lab Smp Id: 0303L980-005T Client Smp ID: SH102-0317-D00703MS  
Inj Date : 24-MAR-03 19:11:00  
Operator : MFS Inst ID: 5972H.i  
Smp Info : 0303L980-005T H032401, [AL=O624CO], [DC=00]  
Misc Info : DIL,1,WSRC 5ML  
Comment :  
Method : /chem/msvoa3/5972h.i/h032403o.b/olm4.lw.m  
Meth Date : 26-Mar-03 10:32:50 rubinob Quant Type: ISTD  
Cal Date : 24-MAR-03 08:50:00 Cal File: h032403.d  
Als bottle: 7 QC Sample: MSD  
Dil Factor: 1.00000  
Integrator: HP RTE  
Target Version: 3.30 Compound Sublist: O624CO.sub  
Processing Host: hp4920a

Concentration Formula: Uf/Vo

Name	Value	Description
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	( ug/L)
* 1 Bromochloromethane	128	13.613	13.605	(1.000)	510425	50.0000	
* 2 1,4-Difluorobenzene	114	15.331	15.314	(1.000)	2062799	50.0000	
* 3 Chlorobenzene-d5	117	20.022	20.015	(1.000)	1709051	50.0000	
\$ 4 1,2-Dichloroethane-d4	65	14.620	14.603	(1.074)	843784	46.1172	46.117
\$ 5 Toluene-d8	98	17.603	17.585	(0.879)	1738628	49.9063	49.906
\$ 6 Bromofluorobenzene	95	22.067	22.059	(1.102)	1350176	45.9284	45.928
68 Dichlorodifluoromethane	85.00	Compound Not Detected.					
7 Chloromethane	50.00	Compound Not Detected.					
8 Vinyl Chloride	62.00	Compound Not Detected.					
9 Bromomethane	94.00	Compound Not Detected.					
10 Chloroethane	64.00	Compound Not Detected.					
11 Trichlorofluoromethane	101.00	Compound Not Detected.					
14 1,1-Dichloroethene	96	9.129	9.102	(0.671)	583066	45.0239	45.024
65 Freon-113	151.00	Compound Not Detected.					
16 Acetone	43.00	Compound Not Detected.					
15 Carbon Disulfide	76.00	Compound Not Detected.					
69 Methyl Acetate	43.00	Compound Not Detected.					

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
17 Methylene Chloride	84		10.660	10.643 (0.783)		79808	4.64391	4.644 (a) ✓
19 trans-1,2-Dichloroethene	96.00			Compound Not Detected.				
20 Methyl-T-Butylether	73		11.203	11.186 (0.823)		103300	3.78457	3.784 (a) ✓
23 1,1-Dichloroethane	63.00			Compound Not Detected.				
25 cis-1,2-Dichloroethene	96.00			Compound Not Detected.				
26 2-Butanone	43.00			Compound Not Detected.				
27 Chloroform	83.00			Compound Not Detected.				
28 1,1,1-Trichloroethane	97		13.959	13.931 (0.910)		35534	1.23137	1.231 (a) ✓
70 Cyclohexane	56.00			Compound Not Detected.				
29 Carbon Tetrachloride	117.00			Compound Not Detected.				
30 Benzene	78		14.561	14.544 (0.950)		1765051	50.4228	50.423 ✓
31 1,2-Dichloroethane	62.00			Compound Not Detected.				
32 Trichloroethene	130		15.657	15.650 (1.021)		911895	51.7375	51.737 ✓
71 Methylcyclohexane	83.00			Compound Not Detected.				
33 1,2-Dichloropropane	63.00			Compound Not Detected.				
34 Bromodichloromethane	83.00			Compound Not Detected.				
36 cis-1,3-Dichloropropene	75.00			Compound Not Detected.				
37 4-Methyl-2-Pentanone	43		17.721	17.516 (0.885)		24266	1.61346	1.613 (a) ✓
38 Toluene	91		17.711	17.694 (0.885)		2031035	51.3702	51.370 ✓
39 trans-1,3-Dichloropropene	75		18.314	18.207 (1.195)		18076	0.91598	0.9160 (a) ✓
40 1,1,2-Trichloroethane	97.00			Compound Not Detected.				
41 Tetrachloroethene	164		18.551	18.543 (0.926)		22701	1.39849	1.398 (a) ✓
43 2-Hexanone	43.00			Compound Not Detected.				
42 Dibromochloromethane	129.00			Compound Not Detected.				
72 1,2-Dibromoethane	107.00			Compound Not Detected.				
44 Chlorobenzene	112		20.072	20.054 (1.002)		1742200	52.0136	52.014 ✓
45 Ethylbenzene	106.00			Compound Not Detected.				
46 m & p-Xylene	106.00			Compound Not Detected.				
47 o-Xylene	106.00			Compound Not Detected.				
M 48 Xylenes (Total)	106.00			Compound Not Detected.				
49 Styrene	104.00			Compound Not Detected.				
50 Bromoform	173.00			Compound Not Detected.				
73 Isopropylbenzene	105.00			Compound Not Detected.				
51 1,1,2,2-Tetrachloroethane	83.00			Compound Not Detected.				
52 1,3-Dichlorobenzene	146.00			Compound Not Detected.				
53 1,4-Dichlorobenzene	146.00			Compound Not Detected.				
54 1,2-Dichlorobenzene	146.00			Compound Not Detected.				
74 1,2-Dibromo-3-Chloropropane	75.00			Compound Not Detected.				
75 1,2,4-Trichlorobenzene	180.00			Compound Not Detected.				

### QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation (BLQOQ).

PL 3/26/03

## **Analysis Run Log**

Lionville Laboratory Incorporated

GC/MS VOLATILE ANALYSIS LOG

DATE: 3/6/03  
 CIRCLE: OP #: MV-004200  
MV-0624/00

IS 9083-094-02  
 SS- SL-03  
 CAL- 01802 2<sup>nd</sup> Stage 03/03/03

MS-9083-094-03  
 BFB- 9083-098-02

Purge: Heated Ambient

INSTRUMENT ID 517283  
 ANAL INIT

Analytes: TCT/PP APIX DW TCLP Other:

518-03

ANALYSIS TIME	FILE NAME	COC BATCH NUMBER		CLIENT ID OR TUNER/STD ID	SP#	PREPARATION		INST DIL	COMMENTS (INI. VOLUME, uL)	LIST	ANAL INIT
		YYMM	LL XXX			SAMPLE WT/VOL	pH				
7:15	HO30601	BSR	Sog	1	-			(2nd)	OK	OK	
7:37	HO30602	✓STN	200	1	2	50			OK	OK	
8:06	HO30603		100	1	3				OK	OK	
8:35	HO30604		50	1	4				Ketone↑ NOT USED	OK	
10:50	HO30605		20	1	5					OK	
10:53	HO30606		10	1	6					OK	
11:27	HO30608	✓STN	50	1	7					OK	
12:04	HO30609	✓STN	20	1	8					OK	
12:42	HO30610	031VHO41 HS	Solid Block	1	9	Sog				OK	
13:18	HO30611	031VHO42 HS	Water Block	12	She				Ketone↑, OK		
13:59	HO30612	031VHO41 HS	Tur Solid Spike	13	5.03				Ketone↑, NOT USED	OK	HS
14:36	HO30613	03032874 CO	11 water	14	5.09						

\*X = Time Tune Expires; Tune Time Checked OK

Reviewed by (Date / Initials): Rec 3/7/03

Lionville Laboratory Incorporated

GC/MS VOLATILE ANALYSIS LOG

LOGBOOK # 5572A

DATE: 3/6/03 IS- C MS-   
 CIRCLE: OP #: MV-0042700 SS- S BFB-   
 MV-0624 /00 MV-524.2 /00 Other:   
 Analytes: TCLP APX DW TCLP Other:

CAL- Dr. H. LS-  INSTRUMENT ID 5572A  
 COMM-  Purge: Heated Ambient  
 CO- 4 ANAL INT: 4

ANALYSIS TIME	FILE NAME	COC BATCH NUMBER		CLIENT ID OR TUNE/STD ID	SP#	PREPARATION		INST DIL	(INJ VOLUME, µL)	COMMENTS	LIST	ANAL INT
		YYMM	LL XXX			SAMPLE WT/VOL	pH					
15.11	HR02014	02025874	002	Linde	15	4.69	-	(13-1)-die overall	OK	HS	✓	
15.42	HR02015			Linde	2	5.13	-	1st 1/3 die overall, Kelvin ↑ circ.	✓	✓		
16.23	HR02016			Linde	3	5.09	-	1st 1/3 die off, Kelvin ↑ circ	✓	✓		
16.52	HR02017	0303L4041	+MBK	Soil full/BS	4	5.03	-	OK		PR		
17.34	HR02018	0303L4074	+MB	Linde	5	1.29	-	OK, (P)		PR		
18.09	HR02019	0303L4071	+MB	Soil BS/MB	6	5.05	-	OK		PR		
19.44	HR02020				7	1	-	not crisp	✓			

✓ = Time Tune Expires; Tune Time Checked 3/7/03  
 MV/ANALYSISLOG-0901

Reviewed by (Date / Initials): Gesell

# Lionville Laboratory Incorporated

## GCMS VOLATILE ANALYSIS LOG

DATE: 3/24/03

CIRCLE: OP #: MV-004.2/00

MV-8260B/100

MV-0624/100

MV-524.2/100 Other:

IS-GC823-C18-C3  
SS-616-C3  
CAL-C18-C3

MS-GC823-C5-C3  
BFB-L CO8-02  
Purge: Heated Ambient

15  
80  
14

Analytes: TCLPP APIX DW TCLP Other:

ANALYSIS TIME	FILE NAME	COC BATCH NUMBER YMMMDL XXX	CLIENT ID OR TUNESTD ID	SPM	PREPARATION		INST OIL	COMMENTS (IN VOLUME, uL)	LIST	ANAL INIT
					SAMPLE WT/OL	pH				
7:52	H032401	PBP	50g	T				(and)	OK	
8:11	H032402	VSTD	SD	T	2	5ml		NO GCD	OK	
8:50	H032403	VSTD	SD	T	3				OK	
9:29	H032404	VSTD	SD	T	4				OK	
10:01	H032405	O3 GRNHCOSI	NBS	Soil Blank	S	5.0g		(notes)	OK	
10:43	H032406	O3 IN HClO4	NBS	Soil Blank	L				OK	
11:19	H032407	O3 WH501 NBS		Cap Weber Blank Spike	T	5.0g		(notes)	OK	
11:56	H032408	O3 WH500 NBS	A	Cap Weber Blank Spike	S				OK	
12:39	H032409	O3 O3 962 CO2	A	Soil	10	5ml	2	1	OK	He
13:15	H032410				11		2	1	OK	
13:51	H032411				12		2	1		
13:51	H032412				T		2	1	TB	siloxane TC's, OK
14:51	H032413	O3 O3 962 CO2		WSDCC	14		2	1	OK	CO

Reviewed by (Date / Initials): DR 3/05/03

\*R-SO = Time Tune Expires; Time Time Checked —

DATE: 3/24/03  
 CIRCLE: OP # MV-004.2700  
 MV-0524/00

MV-524.2/00

MV-524.2/00 Other:

Analytes: TCLPP APIX DW TCLP Other:

IS-  
 SS- (See pg 649)  
 CAL-

MS.

BFB.

Purge: Heated

INSTRUMENT ID 5021

CO

Ambient

OO

11

ANALYSIS TIME	FILE NAME	COC BATCH NUMBER YYMM.L XXX	CLIENT ID OR TIME/STD IN	SP#	PREPARATION		INST DIL.	COMMENTS (INI VOLUME, uL)	LIST	ANAL INT
					SAMPLE WT/VOL	pH				
1638	HO32414	03032480	001	A			15	5ml 2 1	OK	CO
1649	HO32415		002	A			2	2	53↓	
1724	HO32416		003	A			3	2	OK	
1759	HO32418		004	A			4	2	OK	
1835	HO32419		005	A			5	2		
1911	HO32420		006	A			6	2	53↓, OK, re-filled	
NO RUN	HO32431		007	A			7	2	OK	1
			008	A			8	1	NOT RUN	AC


\*QSO = Time Tune Expires. Tune Time Checked M 3/24/03

Reviewed by (Date / Initials): JR 3/25/03

Lionville Laboratory Incorporated

GCMS VOLATILE ANALYSIS LOG

DATE: 2/25/03  
CIRCLE: OP #: MV-0042/00  
MV-0524/00

MV-8260B/00  
MV-524.2/00 Other:

Analytes: TCLP APIX DW TCLP Other:

IS-9083-COB-C2  
SS-016-03  
CAL-018-02  
Lc-018-03  
2/25/03  
AIA 9083-COB-C1  
2/25/03  
COB-C2

MS-9083-COB-C2  
BFB-2 COB-C2  
Purge: Heated

Ambient  
Purge: Heated

ANALYSIS TIME	FILE NAME	COG BATCH NUMBER YYMMI XXX	CLIENT ID OR TIME STAMP	SP#	PREPARATION			INST. DIL.	(INI. VOLUME, uL)	LIST	ANAL. INIT
					SAMPLE W/VOL	pH	INST. DIL.				
7:20	HO32SD1	TSCS	Long		1 DE8260 COB				(25)	OK	
7:44	HO32SD2	VSTD	2							OK	
8:22	HO32SD3	O32WHOLE1	MBIS		624 UES/ SPC CHECK	15				OK	
9:01	HO32SD4	VSTD	02		LCSTD - IC	4				OK	
9:39	HO32SD5	O32WHOLE1	MBIS		Water Blank	5				OK	
10:17	HO32SD6	O32WHOLE1	MBIS		100 Water Blank Spike	6				OK	
11:19	HO32SD7	O32WHOLE1	MBIS		Water Blank	7				OK	
11:57	HO32SD8	O32WHOLE1	MBIS		NFT	8				OK	
12:41	HO32SD9		007		10	2	1	10		OK	X
12:59	HO32SD10		A		11	2	1			OK	J
13:51	HO32SD11	O32WHOLE1	CO2		B	12	2	1	(Circled) Spike	OK	CO
14:37	HO32SD12	O32WHOLE1	CO2		A	13	2	1	10 (Circled) Spike	OK	CF
15:44	HO32SD13		1		A	14	1	2	(Circled) Spike	OK	J

Reviewed by (Date / Initials): DR 3/26/03

\* 6:22 = Time Tune Expires; Tune Time Checked 

Lionville Laboratory Incorporated

GCMS VOLATILE ANALYSIS LOG

DATE: 3/25/03  
 CIRCLE: OP #: MV-0002/00  
 MV-0624/00 MV-524.2/00 Other:

IS: OK  
 SS: None  
 CAL: QW

Analytes: CLIPPA APIX DW TCLP Other:

MS: \_\_\_\_\_  
 BFB: \_\_\_\_\_

Purge: Heated Ambient CO<sub>2</sub>

ANALYSIS TIME	FILE NAME	COC BATCH NUMBER VVMMI XXX	CLIENT ID OR INVESTIGATOR	SP#	PREPARATION SAMPLE WT/VOL	INST ML	COMMENTS (INJ VOLUME, uL)	LIST	ANAL INIT
15:51	1032514	C3034 CO2 005	A	B7C	15 Sm	2	OK	CF	OK
16:28	1032515	C3034 CO2 003	lipair	UPE	2 5ml	2	overdil		
17:05	1032516	CO2 003	lipair	UPE	3	2	OK		
17:42	1032517	CO2	A	B7C	4	2	100 million	CO <sub>2</sub> OK	OK
18:18	1032518	CO2	A	B7C	5	2	100	DUPLICATE NOT USED	1
18:44	1032519	0303L003	WAB	B7C	6 Sm	2	(1.5ml/5ml) 534 OK (PI)	OK	OK
22:01	10	0303L003	WAB	UFS/lipair	7	5ml	2		
22:36	J1	1	WAB	B7C	8	1	DUPLICATE (1.5ml/5ml) OK	OK	OK
23:14	J2	1	WAB	B7C	10	2	(1.5ml/5ml) 100 OK	OK	OK
23:51	J3	1	WAB	B7C	11	2	(1.5ml/5ml) 100 OK	OK	OK

\*xx:yy = Time Time Expires: Time Time Checked xx:yy

MV ANALYSISLOG.0901

Reviewed by (Date / Initials): DR 3/26/03

## **Standard Preparation Records**

## VOA STANDARD PREPARATION LOG

Standard ID 8655-CRL-01Description LC Cal Std

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY (µg/mL or %)	WT or VOL USED* (g or µL)	FINAL VOLUME (mL)	FINAL CONC/UNITS (µg/mL)
<u>8655-093-02</u>	<u>LWI Decaene</u>	<u>10/10/02</u>	<u>50ug/ml</u>	<u>500µl</u>	<u>5ml</u>	<u>5 ug/ml</u>

MeOH LOT # 41278 PREPARED BY (initial/date) DR 9/11/02  
EXPIRATION DATE 10/15/02 REVIEWED BY (initial/date) DR 9/11/02

Standard ID 8655-096-02Description TCLP Spike

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY (µg/mL or %)	WT or VOL USED* (g or µL)	FINAL VOLUME (mL)	FINAL CONC/UNITS (µg/mL)
<u>OVT117</u>	<u>TCLP Spike ULTRA</u>	<u>12/04</u>	<u>1000</u>	<u>500µl</u>	<u>10mL</u>	<u>50ug/mL</u>

MeOH LOT # 41278 PREPARED BY (initial/date) DR 9/11/02  
EXPIRATION DATE 10/11/02 REVIEWED BY (initial/date) M 9/11/02

Standard ID 8655-096-03Description CUP Spike

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY (µg/mL or %)	WT or VOL USED* (g or µL)	FINAL VOLUME (mL)	FINAL CONC/UNITS (µg/mL)
<u>OVT090</u>	<u>VOA Matrix / Supelco</u>	<u>6/04</u>	<u>1000</u>	<u>500µl</u>	<u>10mL</u>	<u>50ug/mL</u>
<u>+</u>	<u>+</u>	<u>+</u>	<u>+</u>	<u>+</u>	<u>+</u>	<u>+</u>

MeOH LOT # 41278 PREPARED BY (initial/date) DR 9/17/02  
EXPIRATION DATE 3/17/03 REVIEWED BY (initial/date) M 9/17/02

\* WEIGHT of neat material; VOLUME of stock

## VOA STANDARD PREPARATION LOG

Standard ID 9083-008-01Description Acrolein Acrylonitrile

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY (µg/mL or %)	WT or VOL USED* (g or µL)	FINAL VOLUME (mL)	FINAL CONC/UNITS (µg/mL)
CINT 155	Acrolein/Acrylonitrile	3/03	2000 µg/ml	250 µL	10 mL	50 µg/ml

Acrolein  
Acrylonitrile  
11/103

MeOH LOT # 41278 PREPARED BY (initial/date) JAS 11/103  
EXPIRATION DATE 3/03 REVIEWED BY (initial/date) TK 1-8-03

Standard ID 9083-008-02Description PFB (Tonic)

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY (µg/mL or %)	WT or VOL USED* (g or µL)	FINAL VOLUME (mL)	FINAL CONC/UNITS (µg/mL)
CINT 071	Supelco PFB	1/04	2000 µg/ml	625 µL	50 mL	25 µg/ml

Supelco  
PFB  
11/103

MeOH LOT # 41278 PREPARED BY (initial/date) JAS 11/103  
EXPIRATION DATE 7/17/03 REVIEWED BY (initial/date) TK 1-8-03

Standard ID 9083-008-03Description HEXANE (STOCK)

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY (µg/mL or %)	WT or VOL USED* (g or µL)	FINAL VOLUME (mL)	FINAL CONC/UNITS (µg/mL)
ST BAKER'S	Hexane lot X35E16 GSA purity	11/03	0.660	1000 µL	6.6 mL	10,000

ST BAKER'S  
Hexane lot X35E16  
GSA purity  
11/103

MeOH LOT # 41278 PREPARED BY (initial/date) JAS 11/103  
EXPIRATION DATE 7/18/03 REVIEWED BY (initial/date) PAW 11/13/03

\* WEIGHT of neat material; VOLUME of stock

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## Lionville Laboratory Incorporated

## VOA STANDARD PREPARATION LOG

Standard ID 9083-05-01 Description 524 2nd SRC

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY ( $\mu\text{g/mL}$ or %)	WT or VOL USED* (g or $\mu\text{L}$ )	FINAL VOLUME (mL)	FINAL CONC/UNITS ( $\mu\text{g/mL}$ )
03 VT001	VOL mixture/Ultra	9/05	2000	312.5	25	25
<i>1st dilution 2/6/03</i>						
<i>1st dilution 2/6/03</i>						
MeOH LOT #	41078	PREPARED BY (initial/date)			JW 2/6/03	
EXPIRATION DATE	2/12/03	REVIEWED BY (initial/date)			Pn 2/10/03	

Standard ID 9083-05-02 Description 2-Cl-EVE, Acetone, Acetonitrile 2/12

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY ( $\mu\text{g/mL}$ or %)	WT or VOL USED* (g or $\mu\text{L}$ )	FINAL VOLUME (mL)	FINAL CONC/UNITS ( $\mu\text{g/mL}$ )
ABNT009	Restric 2-Cl-EVE	6/05	2000 "ml	625 "ml	25 "ml	50 "ml
<i>2-Cl-EVE 2/12/03</i>						
<i>2-Cl-EVE 2/12/03</i>						
MeOH LOT #	41258	PREPARED BY (initial/date)			AS 2/12/03	
EXPIRATION DATE	2/12/03	REVIEWED BY (initial/date)			Pn 2/10/03	

Standard ID 9083-05-03 Description ALT8760 IS

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY ( $\mu\text{g/mL}$ or %)	WT or VOL USED* (g or $\mu\text{L}$ )	FINAL VOLUME (mL)	FINAL CONC/UNITS ( $\mu\text{g/mL}$ )
ABNT009	82604 internal Restric	5/05	2500 "ml	50 "ml	25 "ml	50 "ml
<i>2-Cl-EVE 2/13/03</i>						
<i>2-Cl-EVE 2/13/03</i>						
MeOH LOT #	41278	PREPARED BY (initial/date)			AS 2/13/03	
EXPIRATION DATE	2/13/03	REVIEWED BY (initial/date)			Pn 2/19/03	

\*WEIGHT of neat material; VOLUME of stock

## Lionville Laboratory Incorporated

## VOA STANDARD PREPARATION LOG

Standard ID 9083-06-01Description DeMIX +

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY ( $\mu\text{g/mL}$ or %)	WT or VOL USED* (g or $\mu\text{L}$ )	FINAL VOLUME (mL)	FINAL CONC/UNITS ( $\mu\text{g/mL}$ )
C3VT001	VOA mix   Ultra	9/05	2000	312.5	25ml	25 $\mu\text{g/ml}$
C0VT154	VOA (A) mix   RESTEK	11/05	5000	125		
C0NT151	Carbonyl Dioxide   Supelco	6/04	5000	125		
C0NT135	MEBE   Supelco	3/05	2000	312.5		
03VT003	Freon 113   RESTEK	7/04	2000	312.5		
				DR2/3103		
MeOH LOT #	41278					
EXPIRATION DATE	2/31/03	TO DR 2/13/03				
					PREPARED BY (initial/date)	DR 2/13/03
					REVIEWED BY (initial/date)	PN 2/19/03

Standard ID 9083-01L-02Description DF Internal Std

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY ( $\mu\text{g/mL}$ or %)	WT or VOL USED* (g or $\mu\text{L}$ )	FINAL VOLUME (mL)	FINAL CONC/UNITS ( $\mu\text{g/mL}$ )
CRUT149	Supelco VOA 15 mix	10/04	1000 $\mu\text{g/ml}$	500 $\mu\text{l}$	10ml	50 $\mu\text{g/ml}$
↓	↓	↓	↓	500 $\mu\text{l}$	10ml	50 $\mu\text{g/ml}$
MeOH LOT #	41278 C6721				PREPARED BY (initial/date)	AP 2/18/03
EXPIRATION DATE	2/18/03				REVIEWED BY (initial/date)	PN 2/19/03

Standard ID 9083-01L-03Description Sucrose Std

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY ( $\mu\text{g/mL}$ or %)	WT or VOL USED* (g or $\mu\text{L}$ )	FINAL VOLUME (mL)	FINAL CONC/UNITS ( $\mu\text{g/mL}$ )
CRUT125	Supelco VOA 55 mix	2/05	1000 $\mu\text{g/ml}$	500 $\mu\text{l}$	10ml	50 $\mu\text{g/ml}$
↓	↓	↓	↓	500 $\mu\text{l}$	10ml	50 $\mu\text{g/ml}$
MeOH LOT #	41278 C6721				PREPARED BY (initial/date)	AP 2/18/03
EXPIRATION DATE	2/18/03				REVIEWED BY (initial/date)	PN 2/19/03

\*AMOUNT of neat material; VOLUME of stock

RECEIPT

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## Lionville Laboratory Incorporated

## VOA STANDARD PREPARATION LOG

Standard ID 9083-018-01

Description TCLP SPK

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY ( $\mu\text{g}/\text{mL}$ or %)	WT or VOL USED* (g or $\mu\text{L}$ )	FINAL VOLUME (mL)	FINAL CONC/UNITS ( $\mu\text{g}/\text{mL}$ )
O3NT002	Trip mix /UGRA	12/04	1000	5000 uL	10mL	500 $\mu\text{g}/\text{mL}$
MeOH LOT #	C6721	EXPIRATION DATE	3/21/03	PREPARED BY (initial/date)	DR 2/21/03	
				REVIEWED BY (initial/date)	R 2/21/03	

Standard ID 9083-018-02

Description DF Cal Std

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY ( $\mu\text{g}/\text{mL}$ or %)	WT or VOL USED* (g or $\mu\text{L}$ )	FINAL VOLUME (mL)	FINAL CONC/UNITS ( $\mu\text{g}/\text{mL}$ )
O3NT014	Ruster O4.1 Neoplatin	4/04	2000 $\mu\text{g}/\text{mL}$	625 uL	25mL	50 $\mu\text{g}/\text{mL}$
O3NT016	Ruster VOA Cal mix # 1	11/05	5000 $\mu\text{g}/\text{mL}$	250 uL		
O3NT008	Ruster 502 Cal mix # 1	5/09	2000 $\mu\text{g}/\text{mL}$	625 uL		
O3NT017	Ruster VA	8/07	2000 $\mu\text{g}/\text{mL}$	625 uL		50 $\mu\text{g}/\text{mL}$
O3NT009	Ruster ZENE	6/06	2000 $\mu\text{g}/\text{mL}$	1250 uL		100 $\mu\text{g}/\text{mL}$
O2NT155	Acridine /Argentinic	3/03	2000 $\mu\text{g}/\text{mL}$	625 uL		50 $\mu\text{g}/\text{mL}$
8155-103-02	Acridine	5/5/03	10,000 $\mu\text{g}/\text{mL}$	250 uL		100 $\mu\text{g}/\text{mL}$
MeOH LOT #	C6721	EXPIRATION DATE	4/13/03 *	PREPARED BY (initial/date)	M 3/13/03	
			*Acridine Argentinic exp 3/13/03	REVIEWED BY (initial/date)	DR 3/6/03	

Standard ID 9083-018-03

Description LC Cal Std

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY ( $\mu\text{g}/\text{mL}$ or %)	WT or VOL USED* (g or $\mu\text{L}$ )	FINAL VOLUME (mL)	FINAL CONC/UNITS ( $\mu\text{g}/\text{mL}$ )
9083-018-02	LWJ Cal Std	4/13/03 *	50 $\mu\text{g}/\text{mL}$	500uL	5mL	5 $\mu\text{g}/\text{mL}$
MeOH LOT #	C6721	EXPIRATION DATE	4/13/03 *	PREPARED BY (initial/date)	M 3/13/03	
				REVIEWED BY (initial/date)	DR 3/6/03	

\* AMOUNT of neat material; VOLUME of stock

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## Lionville Laboratory Incorporated

## VOA STANDARD PREPARATION LOG

Standard ID 9083-019-01Description DeCALmix (NO GASES)

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY ( $\mu\text{g/mL}$ or %)	WT or VOL USED* (g or $\mu\text{L}$ )	FINAL VOLUME (mL)	FINAL CONC/UNITS ( $\mu\text{g/mL}$ )
3 012 DR 3/17/03						
03NT034 VOA CALmix Kit (#Gases)   Supelco		3/04	2000	312.5	25ml	25 $\mu\text{g}/\text{ml}$
03VT150 MTBE   Supelco		10/05	2000	312.5	25mL	
03VT003 Freon 113   RESTEK		7/03	2000	312.5		
03VT151 CS2   Supelco		6/04	5000	125		
03VT016 VOA CALmix Kit (#Gases)   RESTEK		11/05	5000	125		
				DR 3/17/03		

MeOH LOT #

C6721

PREPARED BY (initial/date)

DR 3/17/03

EXPIRATION DATE

5/17/03 (NO GASES)

REVIEWED BY (initial/date)

AS 3/17/03Standard ID 9083-019-02Description GASES

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY ( $\mu\text{g/mL}$ or %)	WT or VOL USED* (g or $\mu\text{L}$ )	FINAL VOLUME (mL)	FINAL CONC/UNITS ( $\mu\text{g/mL}$ )
03NT012 VOA CALmix Kit (#Gases)   Supelco		3/04	2000	312.5	25	25 $\mu\text{g}/\text{ml}$
				DR 3/17/03		

MeOH LOT #

C6721

PREPARED BY (initial/date)

DR 3/17/03

EXPIRATION DATE

3/24/03

REVIEWED BY (initial/date)

AS 3/17/03Standard ID 9083-019-03Description Cu Matrix Spike

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY ( $\mu\text{g/mL}$ or %)	WT or VOL USED* (g or $\mu\text{L}$ )	FINAL VOLUME (mL)	FINAL CONC/UNITS ( $\mu\text{g/mL}$ )
03VT043 Supelco VOA Matrix Spike		6/04	1000 $\mu\text{g}/\text{ml}$	500 $\mu\text{L}$	10ml	50 $\mu\text{g}/\text{ml}$
1	1	1	1 $\mu\text{L}$	500 $\mu\text{L}$	10ml	50 $\mu\text{g}/\text{ml}$

MeOH LOT #

C6721

PREPARED BY (initial/date)

AS 3/18/03

EXPIRATION DATE

9/18/03

REVIEWED BY (initial/date)

AS 3/20/03

\*WEIGHT of neat material; VOLUME of stock

## **Preparation Logs**

## SAMPLE PREP RECORD

Sheet no.: 1

Extract. Date: 03/24/03

Extraction Batch No: 03LVH059

Analyst: MS Method: N/A

Test: 0624

LIMS Report Date: 03/26/03

Cleanup Date:

Analyst:

Adsorbent:

Client: WSRC WA-03-1-LFW

Sample No:	Client Name Client ID	pH	Initial Surr.	Spike	Final	Final	Split	GPC	% C/D	FACTOR
0303L962-	WSRC WA-03-1-LFW									
001	H	LFW-000000465-530730	2	5	1.0	5	1.0	N	0.0	1.0
002	H	LFW-000000532-530730	2	5	1.0	5	1.0	N	0.0	1.0
002	HR	LFW-000000532-530730	2	5	1.0	5	1.0	N	0.0	1.0
002	HS	LFW-000000532-530730	2	5	1.0	5	1.0	N	0.0	1.0
0303L980-	NYSDEC									
001	C	SH102-0317-D00709	2	5	1.0	5	1.0	N	0.0	1.0
003	C	SH102-0317-D00704	2	5	1.0	5	1.0	N	0.0	1.0
004	C	SH102-0317-D00707	2	5	1.0	5	1.0	N	0.0	1.0
005	C	SH102-0317-D00703	2	5	1.0	5	1.0	N	0.0	1.0
005	CS	SH102-0317-D00703	2	5	1.0	5	1.0	N	0.0	1.0
005	CT	SH102-0317-D00703	2	5	1.0	5	1.0	N	0.0	1.0
006	C	VOA TB	2	5	1.0	5	1.0	N	0.0	1.0
03LVH059-MB1	C									
03LVH059-MB1	CS									
03LVH059-MB1	H									
03LVH059-MB1	HS									

Comments:  
Surrogate:  
Spike:

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer
					M 3/26/03

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## SAMPLE PREP RECORD

Sheet no.: 1

Extract. Date: 03/25/03

Extraction Batch No: 03LVH061

Method: N/A

Test: 0624

Cleanup Date:

Analyst:

Client: NFT RKET05216

LIMS Report Date: 03/26/03

Solvent:

Adsorbent:

Sample No:	Client Name Client ID	pH	Initial WT/VOL	Surr. Mult.	Spike Mult.	Final VOL	Final VOL	Split Y/N	GPC Solid	% C/D	FACTOR
0303L980-	NFT RKET05216										
007	X 032003CVCL	2	5	1.0	5	1.0	N	0.0	1.0		
008	X 032003VCT1	2	5	1.0	5	1.0	N	0.0	1.0		
008	XS 032003VCT1	2	5	1.0	1.0	5	1.0	N	0.0	1.0	
0303L980-	NYSDEC										
002	C SH102-0317-D00705	2	5	1.0	5	1.0	N	0.0	1.0		
03LVH061-MB1	C	2	5	1.0	5	1.0	N	0.0	1.0		
03LVH061-MB1	CS	2	5	1.0	5	1.0	N	0.0	1.0		
03LVH061-MB1	X	7	5	1.0	5	1.0	N	0.0	1.0		
03LVH061-MB1	XS	7	5	1.0	5	1.0	N	0.0	1.0		

Comments:  
Surrogate:  
Spike:

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer
					AN 320103

## **Other/Miscellaneous**

COMPOUND	H121207	H121208	H121209		AVG	SD	%RSD	IDL
DICHLORODIFLUOROMETHANE	1.765	1.864	1.839		1.823	0.051	2.8	0.153
CHLOROMETHANE	2.981	3.218	3.216		3.138	0.136	4.3	0.408
VINYL CHLORIDE	3.076	3.229	3.324		3.210	0.125	3.9	0.375
BROMOMETHANE	3.704	3.807	4.005		3.839	0.153	4.0	0.459
CHLOROBETHANE	3.778	3.973	3.991		3.914	0.118	3.0	0.354
TRICHLOROFLUOROMETHANE	3.002	3.656	3.375		3.344	0.328	9.8	0.984
PERBEN-113	4.184	4.630	4.455		4.423	0.225	5.1	0.675
ACETONE	6.084	6.178	7.329		6.530	0.693	11.	2.080
CARBON DISULFIDE	4.091	4.433	4.363		4.295	0.181	4.2	0.543
METHYL ACETATE	5.044	5.757	6.548		5.783	0.752	13.	2.260
METHYLENE CHLORIDE	7.192	7.792	7.946		7.643	0.398	5.2	1.190
TRANS-1,2-DICHLOROETHENE	4.441	4.467	4.645		4.518	0.111	2.5	0.333
1,1-DICHLOROBUTANE	4.504	4.798	4.846		4.715	0.185	3.9	0.555
CIS-1,2-DICHLOROBUTENE	4.469	4.638	4.599		4.569	0.088	1.9	0.264
2-BUTANONE	5.718	5.232	6.482		5.811	0.630	11.	1.890
CHLORFORM	4.609	4.795	4.958		4.784	0.170	3.5	0.510
1,1,1-TRICHLOROBUTANE	4.561	4.905	4.924		4.797	0.204	4.3	0.612
CYCLOHEXANE	4.011	4.356	4.455		4.274	0.233	5.5	0.699
CARBON TETRACHLORIDE	4.421	4.821	4.917		4.720	0.263	5.6	0.789
BENZENE	4.534	4.694	4.958		4.729	0.214	4.5	0.642
1,2-DICHLOROBUTANE	4.484	4.689	5.147		4.773	0.339	7.1	1.020
METHYLCYCLOHEXANE	4.115	4.599	4.626		4.447	0.288	6.5	0.864
1,2-DICHLOROPROPANE	4.640	4.798	5.066		4.835	0.215	4.5	0.645
BROMODICHLOROMETHANE	4.481	4.674	4.875		4.677	0.197	4.2	0.591
CIS-1,3-DICHLOROPROPENE	4.155	4.224	4.438		4.272	0.148	3.5	0.444
4-METHYL-2-PENTANONE	3.849	4.390	4.921		4.387	0.536	12.	1.610
TOLUENE	4.345	4.599	4.593		4.512	0.145	3.2	0.435
TRANS-1,3-DICHLOROPROPENE	4.281	4.294	4.538		4.371	0.145	3.3	0.435
1,1,2-TRICHLOROBUTANE	4.518	4.665	5.048		4.744	0.274	5.8	0.822
2-HEXANONE	3.518	3.029	4.488		3.678	0.743	20.	2.230
DBROMOCHLOROMETHANE	4.315	4.604	4.814		4.578	0.251	5.5	0.753
1,2-DIBROMOBUTANE	4.332	4.528	4.977		4.612	0.331	7.2	0.993
CHLOROBENZENE	4.487	4.680	4.822		4.663	0.168	3.6	0.504
ETHYLBENZENE	4.313	4.470	4.656		4.466	0.151	3.4	0.453
XYLENES (TOTAL)	13.18	13.85	14.44		13.82	0.633	4.6	1.900
STYRENE	3.992	3.840	4.247		4.026	0.206	5.1	0.618
BROMOFORM	4.260	4.397	4.900		4.519	0.337	7.5	1.010
ISOPROPYLBENZENE	4.276	4.217	4.681		4.391	0.253	5.8	0.759
1,1,2,2-TETRACHLOROBUTANE	4.355	4.640	5.437		4.811	0.561	12.	1.680
1,3-DICHLOROBENZENE	3.076	2.899	3.372		3.116	0.239	7.7	0.717
1,4-DICHLOROBENZENE	3.432	3.141	3.623		3.399	0.243	7.1	0.729
1,2-DICHLOROBENZENE	3.261	3.809	3.752		3.607	0.301	8.4	0.903
1,2-DIBROMO-3-CHLOROPROPANE	3.019	3.656	4.517		3.731	0.752	20.	2.250
1,2,4-TRICHLOROBENZENE	3.400	3.271	3.641		3.437	0.188	5.5	0.564

**End of Data Package**